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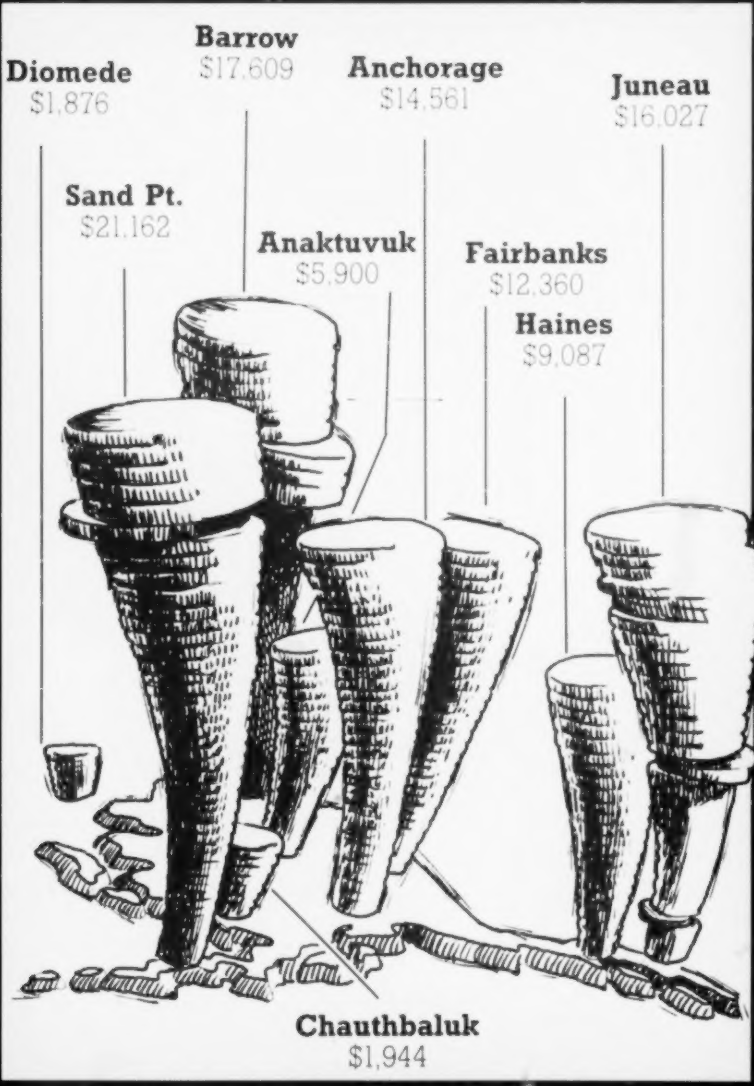
NOVEMBER 1986
ALASKA ECONOMIC TRENDS

Alaska Department of Labor **Bill Sheffield, Governor, State of Alaska**



Alaska's Per Capita Income for Census Areas and Incorporated Places

Alaska Economic Trends

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Labor Force by Region and Census Area Center Insert

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska

Benchmark date March 1985

P/ Denotes preliminary estimates
R/ Denotes revised estimates

Per Capita Income for Census Areas and Incorporated Places

By Edward Eboch

Alaska has been identified as one of the highest per capita income states in the United States. While Alaska ranked number one in per capita income in 1985 in the U.S. (Table 1), it will probably lose that distinction in 1986, falling behind the District of Columbia and Connecticut. With the decline in the price of oil, Alaska, like other oil producing states, is experiencing economic hard times. Layoffs in the private and public sector have resulted in greater competition for jobs and lower wages. Tough times mean less profit for local businessmen and investors. As a result per capita income is expected to decline in 1986 as the population adjusts to these new conditions.

In 1985 Alaska's per capita income was estimated to be $18,187, 31% above the national average but less than 1% above the next two states (Table 2). One must be careful, however, in making comparisons between the statewide per capita income for Alaska and per capita income of other states. Per capita income varies widely by community in Alaska and may vary from year to year in communities heavily dependent on fishing as a source of income. In addition, differences in living costs affect the buying power of this income.

Table 3 compares per capita income for incorporated places within Alaska for 1983. The high per capita incomes of the Anchorage and Juneau boroughs (which have 50% of the population) and a few smaller areas pull up the state's average per capita income. Many communities in Alaska do not share this wealth. Per capita income within Alaska varies from the lows of Chuathbaluk ($1,944), Diomede ($1,876), Russian Mission ($1,862), and Ruby ($1,892) to the highs of Sand Point ($21,162) and Anderson ($19,168).

Caution should be exercised when attempting to use personal income data as a standard of living between areas of the state. Non-cash sources of goods and services, which are important in many rural areas of the state, are not reflected by personal income data. Many census divisions with low per capita income levels also have very high expenditure levels for energy, food, and other goods and services which further complicate interregional comparisons of income.

The State of Alaska's Geographic Differential Study shows the extent that costs differ between geographical areas of Alaska (Table 4). After adjustments are made for living costs and taxes, Alaska's nominally high income buys no more than income in other states. In many of the smaller communities in the state, per capita income is well below poverty income guidelines. Even with the subsistence contributions in rural areas, the per capita income levels are unable to support a life style comparable to what is considered acceptable by most residents of the U.S.

Table 1
Total and Per Capita Income
Alaska and United States
1970 - 1984

	Alaska Total (Million)	U.S. Total (Million)	Alaska Per Capita	U.S. Per Capita
1970	$1,517	$ 825,528	$ 4,986	$ 4,051
1971	1,671	888,453	5,279	4,296
1972	1,832	976,071	5,610	4,664
1973	2,160	1,095,076	6,482	5,181
1974	2,632	1,204,070	7,635	5,644
1975	3,755	1,307,539	10,121	6,069
1976	4,521	1,446,099	11,499	6,647
1977	4,674	1,601,844	11,764	7,289
1978	4,805	1,806,207	11,947	8,133
1979	5,017	2,026,684	12,435	9,025
1980	5,586	2,252,021	13,797	9,910
1981	6,421	2,512,327	15,434	10,940
1982	7,702	2,660,940	17,312	11,470
1983	8,690	2,833,184	18,018	12,093
1984	9,080	3,101,402	17,996	13,114
1985	9,476	3,310,545	18,187	13,867

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table 2
Per Capita Income
Ranked by State 1/
1985

Rank			Rank		
1	Alaska	[illegible]	27	[illegible]	[illegible]
2	Dist. of Columbia	[illegible]	28	[illegible]	[illegible]
3	Connecticut	[illegible]	29	Arizona	[illegible]
4	New Jersey	[illegible]	30	[illegible]	[illegible]
5	Massachusetts	[illegible]	31	Iowa	[illegible]
6	California	[illegible]	32	Georgia	[illegible]
7	New York	[illegible]	33	Indiana	[illegible]
8	Maryland	[illegible]	34	Oklahoma	[illegible]
9	New Hampshire	[illegible]	35	Vermont	[illegible]
10	Colorado	[illegible]	36	North Dakota	12,052
11	Illinois	14,738	37	Maine	11,887
12	Virginia	14,542	38	North Carolina	11,617
13	Nevada	14,488	39	Louisiana	11,274
14	Delaware	[illegible]	40	Tennessee	11,243
15	Minnesota	[illegible]	41	South Dakota	11,161
16	Rhode Island	[illegible]	42	Idaho	11,120
17	Washington	[illegible]	43	Montana	10,974
18	Hawaii	13,814	44	New Mexico	10,914
19	Kansas	13,775	45	Kentucky	10,824
20	Florida	13,742	46	Alabama	10,673
21	Michigan	13,608	47	South Carolina	10,586
22	Texas	13,483	48	Utah	10,493
23	Pennsylvania	13,437	49	Arkansas	10,476
24	Nebraska	13,281	50	West Virginia	10,193
25	Missouri	13,244	51	Mississippi	9,187
26	Ohio	[illegible]			

1/ Includes District of Columbia

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table 3
1984 Population and 1983 Per Capita Income Estimates for Census Areas and Incorporated Places

Area	Population	Estimated Per Capita Money Income (dollars)
State of Alaska	508,062	[illegible]
Aleutian Islands Census Area	7,215	[illegible]
Akutan	180	8,391
Cold Bay	190	15,438
King Cove	521	8,439
St. George	172	7,104
St. Paul	634	7,361
Sand Point	870	21,162
Unalaska	2,144	13,709
Anchorage Borough	226,663	14,561
Anchorage	226,663	14,561
Bethel Census Area	12,110	6,609
Akiak	272	3,526
Aniak	476	9,528
Atmautluak	243	3,920
Bethel	3,927	10,660
Chefornak	268	5,036
Chauthbaluk	141	1,944
Eek	257	4,876
Goodnews Bay	230	6,599
Kasigluk	414	4,702
Kwethluk	519	3,615
Lower Kalskag	270	2,459
Mekoryuk	182	5,172
Napakiak	319	4,931
Napaskiak	289	5,173
Newtok (pt.)	187	2,514
Nightmute	152	4,409
Nunapitchuk	401	3,160
Platinum	60	6,609
Quinhagak	424	4,062
Toksook Bay	365	4,122

Table 3 (Continued)
1984 Population and 1983 Per Capita Income Estimates for Census Areas and Incorporated Places

Area	Population	Estimated Per Capita Money Income (dollars)
Tuluksak	252	2,080
Tununak	334	4,359
Upper Kalskag	111	4,213
Bristol Bay Borough	1,134	17,917
Dillingham Census Area	4,929	8,287
Aleknagik	301	10,348
Chignik	107	12,040
Clark's Point	74	8,287
Dillingham	1,984	11,144
Ekwok	96	8,287
Manokotak	282	6,181
Newhalen	250	8,287
New Stuyahok	160	4,687
Nondalton	231	5,418
Port Heiden	116	8,287
Togiak	554	4,422
Fairbanks North Star Borough	62,278	12,360
Fairbanks	26,614	12,392
North Pole	1,005	11,698
Haines Borough	1,938	9,536
Haines	1,154	9,087
Juneau Borough	23,776	16,027
Juneau	23,776	16,027
Kenai Peninsula Borough	39,544	11,094
Homer	3,384	11,943
Kachemak	328	16,101
Kenai	6,105	13,390

Table 3 (Continued)
1984 Population and 1983 Per Capita Income Estimates for Census Areas and Incorporated Places

Area	Population	Estimated Per Capita Money Income (dollars)
Seldovia	578	4,223
Seward	2,354	[illegible]
Soldotna	3,550	11,244
Ketchikan Gateway Borough	12,376	13,273
Ketchikan	7,741	13,164
Saxman	299	9,215
Kobuk Census Area	5,588	7,560
Ambler	301	7,206
Buckland	249	3,484
Deering	126	4,433
Kiana	402	6,666
Kivalina	275	3,144
Kobuk	92	7,560
Kotzebue	2,412	11,170
Noorvik	517	5,273
Selawik	535	3,465
Shungnak	278	5,884
Kodiak Island Borough	15,780	11,710
Akhiok	103	2,420
Kodiak	7,595	13,445
Larsen Bay	214	8,716
Old Harbor	390	3,781
Ouzinkie city	253	10,701
Port Lions	376	7,723
Matanuska-Susitna Borough	29,612	10,495
Houston	668	8,027
Palmer	2,772	9,785
Wasilla	4,385	10,385

Table 3 (Continued)
1984 Population and 1983 Per Capita Income Estimates for Census Areas and Incorporated Places

Area	Population	Estimated Per Capita Money Income (dollars)
Nome Census Area	7,523	7,531
Brevig Mission	128	3,093
Diomede	153	1,876
Elim	248	4,442
Gambell	498	4,597
Golovin	122	7,531
Koyuk	211	5,492
Nome	2,904	11,180
St. Michael	279	3,915
Savoonga	542	3,498
Shaktoolik	160	4,731
Shishmaref	453	4,851
Stebbins	283	3,097
Teller	270	4,241
Unalakleet	952	6,125
Wales Alaska	182	3,185
White Mountain	136	4,681
North Slope Borough	5,088	14,995
Anaktuvuk Pass	233	5,900
Atqasuk	214	10,257
Barrow	2,943	17,609
Kaktovik	207	12,237
Nuiqsut	305	10,014
Point Hope	582	8,685
Wainwright	507	12,478
Prince of Wales-Outer Ketchikan Census Area	4,832	9,575
Craig	1,065	9,071
Hydaburg	453	6,847
Kasaan	45	9,575
Klawock	532	9,070
Thorne Bay	392	14,314

Table 3 (Continued)
1984 Population and 1983 Per Capita Income Estimates for Census Areas and Incorporated Places

Area	**Population**	**Estimated Per Capita Money Income (dollars)**
Sitka Borough	7,442	13,323
Sitka	7,442	13,323
Skagway-Yakutat-Angoon Census Area	3,956	8,365
Angoon	648	4,789
Hoonah	938	6,341
Pelican	223	10,302
Skagway	816	11,506
Tenakee Springs	156	6,213
Yakutat	453	8,744
Southeast Fairbanks Census Area	6,291	8,259
Delta Junction	170	8,826
Valdez-Cordova Census Area	8,558	13,450
Cordova	2,211	14,740
Valdez	3,570	13,737
Whittier	268	11,979
Wade Hampton Census Area	5,518	4,159
Alakanuk	563	3,010
Chevak	532	3,904
Emmonak	570	3,327
Fortuna Ledge	280	3,939
Hooper Bay	678	4,179
Kotlik	412	4,254
Mountain Village	693	5,452
Newtok City (pt.)	-	-
Pilot Station	428	2,409
Russian Mission	170	1,862
St. Mary's	656	6,202
Scammon Bay	296	4,273
Sheldon Point	135	2,008

Table 3 (Continued)
1984 Population and 1983 Per Capita Income Estimates for Census Areas and Incorporated Places

Area	Population	Estimated Per Capita Money Income (dollars)
Wrangell-Petersburg Census Area	6,357	12,057
Kake	680	7,998
Kupreanof	53	12,057
Petersburg	2,967	13,281
Port Alexander	89	12,057
Wrangell	2,315	11,511
Yukon-Koyukuk Census Area	8,953	9,478
Allakaket	179	4,132
Anderson	524	19,618
Anvik	123	3,849
Fort Yukon	645	8,457
Galena	894	13,049
Grayling	244	3,321
Holy Cross	270	3,226
Hughes	97	9,478
Huslia	283	3,635
Kaltag	260	3,427
Koyukuk	100	9,478
McGrath	499	12,273
Nenana	544	9,603
Nilolai	109	9,478
Nulato	392	4,003
Ruby	310	1,892
Shageluk	148	3,812
Tenana	416	6,902
Multi-County Places:		
Newtok (pt.)	187	2,514

Source: U.S. Bureau of the Census, Current Population Reports, Series P-26, No. 84-W-SC, West: 1984 Population and 1983 Per Capita Income Estimates for Counties and Incorporated Places, U.S. Government Printing office, Washington D.C. 1986

Table 4
Alaska Geographic Differential Study, 1985

District 1/	Cost of Living Differential
Seattle	.86
Palmer/Wasilla	.94
Petersburg/Wrangell	.98
Anchorage (base)	1.00
Seward	1.00
Sitka	1.01
Kenai/Cook Inlet	1.01
Ketchikan	1.02
Juneau	1.03
Fairbanks/Fort Yukon	1.03
Icy Strait/Lynn Canal	1.05
Kodiak	1.06
Cordova/Valdez	1.11
Aleutian Islands	1.26
Wade Hampton	1.26
Bristol Bay	1.29
Yukon/Kuskokwim	1.29
Nome	1.33
Bethel	1.39
Barrow/Kotzebue	1.45

1/ The study was conducted using the districts currently in place for geographic differentials, which are the 1961 election districts.

Source: Alaska Geographic Differential Study, State of Alaska, Department of Administration, Division of Labor Relations. April 1985.

Alaska

By Edward Eboch

Current Events

Alaska's September employment numbers suggest a continued deterioration of the Alaska economy. Unemployment rates remain at record levels and the year-to-year losses in employment increased. Cutbacks in the oil and gas industry and cuts in state government expenditures are now impacting the secondary and tertiary industries. Thus far, declines in employment in oil and gas have been largely restricted to oil and gas field service and related construction.

The state government has cut capital budget expenditures as well as employment related to the operating budget. As a result of these cuts, declines in employment are appearing in the service, finance,insurance and real estate, and trade sectors. The only basic industry that has improved over last year is manufacturing. Increases in the timber industry and in seafood processing have helped maintain the level of employment in the transportation industry.

As the economy declines, the service sector will continue to lose employment. This loss, however, is unlikely to be proportional to the loss in total employment.

Alaska's Service Industry

As Alaska's economy boomed in the 1980s service industry employment increased rapidly. To some extent the growth in the service industry followed a national trend. Nationwide, the shift to greater service employment has been the result of a number of factors. Rising productivity and a limited appetite for products from the agricultural and goods producing sectors have freed up income for spending in other sectors of the economy.

In addition, changes in lifestyle as more women enter the work force have increased the demand for many services. Demand has increased for laundry and cleaning services, beauty shops, and other personal services. Both spouses working increases the need for child day care centers, adult day care centers, and other social services (included in other services category). In fact most services directed at the family have increased as a result of more women being in the work force.

Two family incomes mean more money for discretionary purchases.

Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	p/ 9/86	r/ 8/86	9/85	Changes From: 8/86	 9/85
Nonag Wage & Salary	237400	242700	244900	-5300	-7500
Mining	8100	8400	9600	-300	-1500
Construction	18400	18700	23500	300	-5100
Manufacturing	15800	21700	14000	5900	1800
Food & Kindred Prod	9300	14900	7900	-5600	1400
Lumber & Paper Prod	3100	3300	2400	-200	700
All Other Mfg	3400	3500	3700	-100	300
Trans Comm & Utilities	20400	20400	20300	0	100
Trucking & Whseing	2100	2200	2300	100	-200
Water Transportation	1900	1900	1800	0	100
Air Transportation	6500	6800	6400	-300	100
Other Trans Comm & Utilities	9900	9500	9800	400	100
Trade	46100	46800	47700	-700	-1600
Wholesale	8200	8300	8800	-100	-600
Retail	37900	38500	38900	-600	-1000
Gen Mer & Apparel	5700	5700	5700	0	0
Food Stores	6400	6400	6400	0	0
Eating & Drinking Pl	14000	14400	14000	-400	0
Other Retail Trade	11800	12000	12800	-200	-1000
Finance-Ins & R E	12900	13200	13200	-300	-300
Services & Misc	46000	47900	46900	-1900	-900
Government	69700	65600	69700	4100	0
Federal	18200	18200	17700	0	500
State	20400	19100	21000	1300	-600
Local	31100	28300	31000	2800	100

Prepared in Cooperation with the U S Bureau of Labor Statistics
Government includes teachers in primary and secondary schools and personnel employed by the University of Alaska

Benchmark date March 1985

p/ Denotes primary estimates
r/ Denotes revised estimates

As wealth has increased and relative prices have changed, demand for products from the service sector has increased. Additional wealth has spurred demand for entertainment and travel. Hotels and motels, advertising (business services), motion pictures, bowling alleys, commercial sports, and athletic clubs (amusement and recreational services) are just a few categories of services employment that have benefited from increased wealth.

Health services has been one of the greatest growth sectors in the services industry. Improved technology and more affordable prices, greater awareness of the benefits of a health maintenance program, and a population that is living longer have all contributed to the increased demand for health services. Business and government have increased health benefits to their employees so that more people have taken advantage of health services.

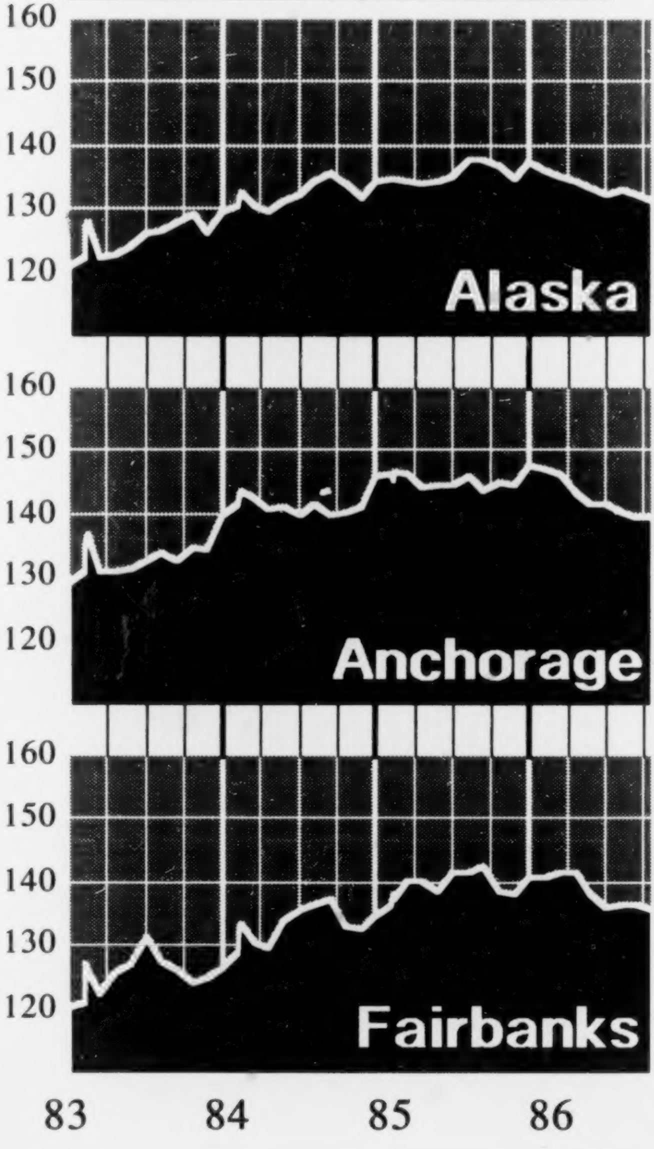
Finally, changes in the way we do business have contributed to employment in the service sector. Many functions that businesses did internally are being provided by consultants or part time help. Some businesses, such as equipment rental and leasing, accounting and auditing, and engineering and architectural services do not represent new employment but primarily represent a change in how this employment is classified. Others, such as computer and data processing services, consultants and some other business services represent new activities. These are just a few of the service sector businesses that have benefited from the change in the way we do business today.

All these factors have contributed to the rapid growth in service industry employment. In addition, in Alaska, much of the increase in employment in the services industry was a result of growth in the economy and a response to a lack in available services. Even though service employment increased as a percent of total employment over the past, in 1985 it still represented only 19.1% of total employment versus the national 22.1%.

Service firms that catered to construction were some of the biggest winners from 1980 and are now suffering losses in employment over the current year (see table). Engineering, architecture, and surveying, automotive and other repair services, and some business services benefited by the increase in construction activity. As construction activity declined, these categories lost employment.

A few categories benefited by the decline in employment. Employment agencies have increased their staffs as a record number of unemployed search for jobs. Educational services have also benefited as the unemployed try to improve their skills to enhance their job opportunities. As depressed economic conditions continue, however, all sectors of services will see a drop in employment but this drop will not be as severe as that of the basic industries.

COMPOSITE NONAG. EMPLOYMENT INDEXES



SEASONALLY ADJUSTED 1983 TO PRESENT
source: ak. dept. of labor

Anchorage/MatSu

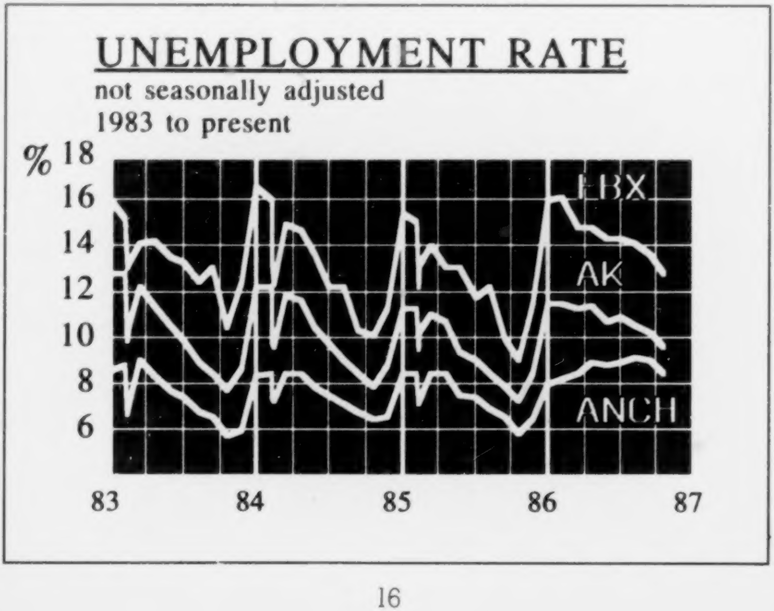
By Greg Huff

MatSu Employment

Newly compiled employment records for the Matanuska-Susitna Borough show employment has increased 2.3% in the first quarter 1986 over the first quarter 1985. These employment counts from employers' quarterly unemployment insurance reports contain the best data available specific to the borough. With minor modifications these numbers are published at a later date in the Department of Labor's *Statistical Quarterly*.

Employment growth in early 1986 was a result of increases in local government employment combined with smaller gains in services, state government, finance, insurance, telephone communications, and wholesale trade. Increases in these industries offset heavy employment losses in the construction industry and minor losses in manufacturing and retail trade.

Employment gains in local government were almost entirely within the MatSu School District. In the first quarter of 1986 school district



employment rose by 233 jobs to a total of 1,323. The increase in school staff was in response to past overcrowded conditions and an increase in school enrollment of 9.4% (750 students) from the fall of 1985 to the fall of 1986.

Increases in services employment were dominated by the health industry. Employment in this industry grew by 66 jobs (to a total of 382 jobs) from the first quarter 1985 to the first quarter 1986. Although employment gains in the health industry overshadowed other components of the services sector, several other sectors also had employment increases.

Increases in employment occurred in personal services (including laundry facilities, beauty and barber shops, shoe repair shops and other similar services), business services (including advertising, credit reporting, personnel supply services, and computer and data processing) and membership organizations (including business associations, labor organizations, religious organizations and similar membership services).

Employment did not increase in all categories of services. Firms providing engineering and architectural services and those providing accounting, auditing, and bookkeeping services lost employment. Most of these losses were related to problems in the construction industry.

While gains in employment have occurred in many industries, job losses in construction have been wide-spread. Construction companies ranging from general contractors to specialty contractors have laid off, on the average, 43% of their work force in the first quarter of 1986 compared to the first quarter of 1985. This decline has affected other industries.

First hit were those industries providing direct inputs such as materials or services. Next were the industries providing secondary inputs, such as food and clothing, to workers in construction and related industries. Because of these ripple effects, the manufacturing and retail trade sectors through March of 1986 had a net decline in employment of 46 jobs. Not a large drop, but an indication of things to come.

Beyond the First Quarter

Employment estimates after the second quarter 1986 indicate a decline in total Matsu employment from the previous year. In addition to employment losses in construction and related activities, local government employment declined. The drop in local government employment was caused by cuts in state government financial assistance to local communities. State government employment in the MatSu Borough also went against the statewide trend and was slightly above year ago levels. (In comparison state government employment in Anchorage for September had declined by 250 jobs compared to the prior year.)

Our sample of MatSu School District employment for the latest period shows a decline of 9.7% this fall from 1985 levels, although student enrollment increased in the district by 2% over the fall of 1985. The non-educational portion of local government employment,however, continued to show increases over the year through September.

MatSu Employment 1980-1985

From 1980 to 1985 MatSu employment increased 114%, or 16.5% annually. MatSu had the fastest growth in employment in the state during this period. MatSu's growth rate was over three times the statewide average. MatSu's rapid employment growth occurred during a period of unprecedented population growth, particularly in the Wasilla and Palmer areas. During that period the MatSu Borough population grew at nearly 14% per year versus the statewide average of 4.2%.

Most of MatSu's employment gains were in industries providing goods and services to the areas residents, many of whom work in Anchorage. The employment boom started with residential construction. This was followed by rapid expansion in retail trade, services and local government employment which required the construction of retail and office space.

Construction employment grew 450% from 1980 to 1984 but fell in 1985 by 27%. The retail trade industry increased employment by over 1,000 jobs, more than doubling in size during this period, and the services sector accounted for an additional 670 new jobs, an increase averaging nearly 20% per year.

Service oriented industries, such as those providing electric and telephone services or financial services, benefited from the rapid population growth in the MatSu region. Employment in the transportation, communication and utility industry increased 16% annually from 1980 to 1985, while employment in the finance, insurance and real estate sector rose 19% annually.

Local government, the largest government component, grew faster than either state or federal government employment. This was in response to the rapid rise in school enrollment. From the fall of 1980 to the fall of 1985 student enrollment in the district increased from 4,413 students to 8,782 students, an increase of 99%, while school district employment increased by 70% to 1,230.

Beginning in 1980 the state government provided added stimulus to the economic expansion in a variety of forms including capital project grants, mortgage subsidies, dividend checks and tax relief. Over the period millions of dollars were appropriated by the state legislature for capital projects ranging from fire houses to road projects. Meanwhile, the Alaska Housing Finance Corporation (AHFC) provided subsidized mortgages. In addition, the state funded nearly two-thirds of the MatSu Borough's operating budget, helping to hold down taxes, relieve debt obligations and enhance funding for education.

1970 to 1980

Employment growth in the MatSu area during this period was less spectacular, though still impressive, than the growth seen during the first half of the 1980s. The compounded annual growth rate was 10.4% during the decade of the 1970s, compared to 16.5% from 1980 to 1985. The growth industries in the 1970s were the same as those in the early 1980s.

The slower employment growth rate in the 1970s was a result of smaller population gains than experienced in the early 1980s. From 1970 to 1980 MatSu population increased from 6,509 to 17,816 people, an average increase of 10.6% per year versus the 13.8% average annual growth during the first five years of the 1980s.

Current Trends

Employment was down slightly in September. At this time of year the salmon season winds down and fish processing employment declines. Air transportation is impacted by the closing salmon season as well. This also marks the end to the tourist season. As a result the air transportation industry began to lay off seasonal workers.

MatSu Nonagricultural Wage and Salary Employment
First Quarter 1985 and First Quarter 1986
By Month

	Jan 1985	Feb 1985	Mar 1985	Jan 1986	Feb 1986	Mar 1986
Mining	*	*	*	*	*	*
Construction	622	645	647	384	359	354
Manufacturing	84	101	101	68	70	86
Trans. Comm. & Util	608	621	632	659	675	673
Trade	1,597	1,508	1,544	1,543	1,528	1,543
Wholesale	102	99	106	131	122	127
Retail	1,495	1,409	1,438	1,412	1,406	1,416
Finance-Ins. & R.E.	290	283	280	315	318	310
Services	1,008	986	1,008	1,092	1,039	1,035
Miscellaneous	*	*	*	*	*	*
Government	2,061	2,121	2,098	2,336	2,419	2,388
Federal	97	101	99	104	105	103
State	683	703	711	713	736	736
Local	1,281	1,317	1,288	1,519	1,578	1,549
Total Nonag. Employment	6,351	6,350	6,396	6,509	6,524	6,510

*Nondisclosable

Source: Alaska Department of Labor, Research & Analysis Section, ES-202

MatSu Nonagricultural Wage and Salary Employment
Annual Averages
1970, 1975, 1980, 1985

	1970 Annual Average	1975 Annual Average	1980 Annual Average	1985 Annual Average
Nonag Wage & Salary	1,219	2,022	3,265	6,991
Mining	*	*	*	12
Construction	135	188	178	710
Manufacturing	*	30	37	111
Trans Comm & Util	112	218	319	670
Trade	184	315	733	1,736
Wholesale	n/a	44	44	125
Retail	n/a	271	689	1,611
Finance-Ins & R E	25	62	120	290
Services	190	288	460	1,129
Miscellaneous	*	*	*	106
Government	511	883	1,341	2,229
Federal	110	124	112	100
State	n/a	n/a	403	737
Local	n/a	n/a	826	1,392
State & Local	401	758	1,229	2,129
Total Wages	$12,399,939	$29,084,848	$62,123,118	$165,294,440
Average Monthly Wage	$841	$1,188	$1,586	$1,969
Number of Firms	203	270	398	919

*Nondisclosable

n/a Not Available

Source: Alaska Department of Labor, Research & Analysis Section, Statistical Quarterly

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/ 9/86	r/ 8/86	9/85	Changes From: 8/86	 9/85
Nonag. Wage & Salary	114150	114850	119800	-700	-5650
Mining	3500	3650	4200	-150	-700
Construction	8250	8450	11050	-200	-2800
Manufacturing	2700	3700	2750	-1000	-50
Food & Kindred Prod	600	1550	550	-950	50
Other Mfg	2100	2150	2200	-50	-100
Trans. Comm. & Utilities	10400	10750	10550	-350	-150
Trucking & Whseing	1250	1350	1300	-100	-50
Water Transportation	400	400	400	0	0
Air Transportation	4100	4350	4000	-250	100
Other Trans. Comm. & Utilities	4650	4650	4850	0	-200
Trade	27500	27650	28700	-150	-1200
Wholesale	6250	6350	6650	-100	-400
Retail	21250	21300	22050	-50	-800
Gen. Merchandise	2000	2000	2150	0	-150
Food Stores	3050	3050	3050	0	0
Eating & Drinking Pl	8450	8450	8650	0	-200
Other Retail Trade	7750	7800	8200	-50	-450
Finance-Ins. & R.E.	8600	8600	8800	0	-200
Services & Misc.	26350	26800	26750	-450	-400
Government	26850	25250	27000	1600	-150
Federal	10050	10100	9750	-50	300
State	7250	6600	7500	650	-250
Local	9550	8550	9750	1000	-200

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/ 9/86	r/ 8/86	9/85	Changes From: 8/86	 9/85
Nonag. Wage & Salary	122350	122750	128700	-400	-6350
Mining	3550	3650	4200	-100	-650
Construction	9000	9200	12100	-200	-3100
Manufacturing	2800	3750	2900	-950	-100
Trans. Comm. & Utilities	11150	11450	11300	-300	-150
Trade	29400	29650	30650	-250	-1250
Finance-Ins. & R.E.	9100	9100	9350	0	-250
Services & Misc.	28100	28400	28700	-300	-600
Government	29250	27550	29500	1700	-250

Alaska Service Industry Employment 1980-1985

				3rd Quarter		
	1980	**1985**	**% Change**	**1985**	**1986**	**% Change**
Hotels, Motels	3275	4699	43.5	5446	5746	5.5
Management Consulting and Public Relations	682	1339	96.3	1357	1327	-2.2
Cleaning and Maintenance	1184	1318	11.3	1336	1264	-5.4
Employment Agencies	1087	1549	42.0	1599	1813	13.4
Other Business Service	2121	4098	93.2	4235	4143	-2.2
Hospitals	2764	3847	39.2	3822	4087	6.9
Other Health	3030	4877	61.0	4889	4844	-0.9
Personnel Services	1157	1940	67.7	1910	1935	1.3
Repair Service	989	1711	73.0	1774	1701	-4.1
Automotive Service & Garages	352	674	91.5	733	650	-11.3
Amusement & Recreation Services	759	1374	81.0	1501	1388	-7.5
Education	579	670	15.7	573	713	24.4
Eng. Arch & Surveying	1553	3085	98.6	3262	2597	-20.4
Other Services	8999	10773	19.7	11110	11204	0.8
Miscellaneous	1674	3432	105.5	3859	3839	-0.5
Total Services	30222	45387	50.2	47406	47255	-0.3
Construction Employment	10610	18546	74.8	23427	18345	-21.7
Total Employment	170927	231257	35.3	247724	241141	-2.7

Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 9/86	R/ 8/86	9/85	P/ 9/86	R/ 8/86	9/85	P/ 9/86	R/ 8/86	9/85	P/ 9/86	R/ 8/86	9/85
Alaska Statewide	263456	273508	257839	25615	27853	18809	9.7	10.2	7.3	237841	245655	239030
Anch.-MatSu Region	138336	141645	137584	12433	13752	8827	9.0	9.7	6.4	125903	127893	128757
Anchorage Borough	121526	124499	120994	10171	11384	7115	8.4	9.1	5.9	111355	113115	113879
MatSu Borough	16810	17146	16590	2262	2368	1712	13.5	13.8	10.3	14548	14778	14878
Gulf Coast Region	29915	33394	27505	3636	3555	2318	12.2	10.6	8.4	26279	29839	25187
Kenai Peninsula Bor	19014	21387	17365	2760	2931	1786	14.5	13.7	10.3	16254	18456	15579
Kodiak Island Bor	6913	7523	6392	575	326	317	8.3	4.3	5.0	6338	7197	6075
Valdez-Cordova	3988	4484	3748	301	298	215	7.5	6.6	5.7	3687	4186	3533
Interior Region	41057	42002	39804	4951	5435	3480	12.1	12.9	8.7	36106	36567	36324
Fairbanks North Star Br	33497	34270	32308	4319	4720	2954	12.9	13.8	9.1	29178	29550	29354
Southeast Fairbanks	3199	3277	3139	252	292	174	7.9	8.9	5.5	2947	2985	2965
Yukon-Koyukuk	4361	4455	4357	380	423	352	8.7	9.5	8.1	3981	4032	4005
Northern Region	8225	8240	8568	1034	1157	877	12.6	14.0	10.2	7191	7083	7691
Kobuk	2652	2676	2627	402	460	220	15.2	17.2	8.4	2250	2216	2407
Nome	3424	3472	3511	422	515	301	12.3	14.8	8.6	3002	2957	3210
North Slope Borough	2149	2092	2430	210	182	356	9.8	8.7	14.7	1939	1910	2074
Southeast Region	34191	35763	32894	2704	2886	2447	7.9	8.1	7.4	31487	32877	30447
Haines Borough	1076	1101	1010	94	76	60	8.7	6.9	5.9	982	1025	950
Juneau Borough	13678	14320	12938	1224	1316	896	8.9	9.2	6.9	12454	13004	12042
Ketchikan Gateway Bor	7246	7488	6956	542	488	473	7.5	6.5	6.8	6704	7000	6483
P of Wales-Outer Ketch	2550	2652	2471	263	264	259	10.3	10.0	10.5	2287	2388	2212
Sitka Borough	4132	4402	4237	234	332	468	5.7	7.5	11.0	3898	4070	3769
Skagway-Yakutat-Angoon	1976	2110	1873	144	197	102	7.3	9.3	5.4	1832	1913	1771
Wrangell-Petersburg	3533	3690	3409	203	213	189	5.7	5.8	5.5	3330	3477	3220
Southwest Region	11732	12464	11484	857	1068	860	7.3	8.6	7.5	10875	11396	10624
Aleutian Islands	2782	2909	2676	124	124	79	4.5	4.3	3.0	2658	2785	2597
Bethel	4606	4965	4592	388	545	471	8.4	11.0	10.3	4218	4420	4121
Bristol Bay Borough	435	461	434	13	18	21	3.0	3.9	4.8	422	443	413
Dillingham	2013	2108	1940	138	143	108	6.9	6.8	5.6	1875	1965	1832
Wade Hampton	1896	2021	1842	194	238	181	10.2	11.8	9.8	1702	1783	1661

P/ Preliminary R/ Revised 1985 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor, because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature, meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's bush localities have proportionately more of these discouraged workers.

School employment increased significantly over the month. In September all major schools began the school year. The largest single component of education employment is the public school sector including the University of Alaska at Anchorage, Anchorage Community College and the Anchorage School District. Combined public education employment increased by over 1,770 jobs from August to September, but was down by four-tenths of a percent compared to September of 1985.

It is unusual that only government showed gains in employment from August to September. During normal years increases appear in a broad range of industries. The slow economy is thus beginning to reach a wider spectrum of industries.

Fairbanks/Interior

By Neal Fried

Fairbanks' Unemployment Picture

The decline in Fairbanks employment in 1986 has been accompanied by a dramatic increase in unemployment. Since June Fairbanks' unemployment rates have been almost two points above unemployment rates of 1985. Fairbanks' unemployment rates for the last four months were surpassed only once in the past—in 1978, a post pipeline slump year—when almost 2,000 wage and salary jobs were lost. The number of unemployed never fell below 4,500 this year. This is the largest number of unemployed recorded in Fairbanks' history, with no relief in sight for the remainder of 1986.

A History of High Unemployment

Fairbanks, unemployment rates have traditionally been high. Only once during the past 12 years has Fairbanks' unemployment rate fallen below the national average and only twice has it fallen below the state's unemployment rate. During the construction of the pipeline, Fairbanks' unemployment rate fell to an all time low of 4.8% in 1975 and remained relatively low in 1976 at 7.6%. These were the only two years that Fairbanks was able to avoid double digit unemployment rates.

Fairbanks' high unemployment rates during the late 1970s can be explained by a sluggish post pipeline economy, however, the high rates experienced during the 1980s are not as easily explained. Though wage and salary employment grew by 2,000 in 1981, the unemployment rate fell by less than one point. In 1982 employment again increased by 2,000, but the unemployment rate increased by almost two points. One explanation for this higher unemployment rate during a period of robust employment growth was the influx of people which resulted from the national recession in 1982.

Thousands of people moved to Alaska that year seeking employment opportunities, and the large number that moved to Fairbanks overwhelmed the ability of Fairbanks' labor markets ability to absorb them—in spite of a booming economy. Because more people were looking for work than there were jobs the unemployment rate went up. The massive influx of job seekers continued through 1983 but began to ease in 1984 as the rest of the country's economy began to rebound. Fairbanks' unemployment rates did improve slightly in 1984 and 1985 but not markedly because local economic growth was beginning to slow.

Fairbanks North Star Borough
Unemployment Rates
1985-1986

	1985	**1986**
January	15.5%	16.0%
February	15.1%	16.2%
March	14.0%	14.9%
April	13.1%	14.9%
May	13.1%	14.4%
June	11.8%	14.4%
July	12.2%	14.1%
August	10.0%	13.7%

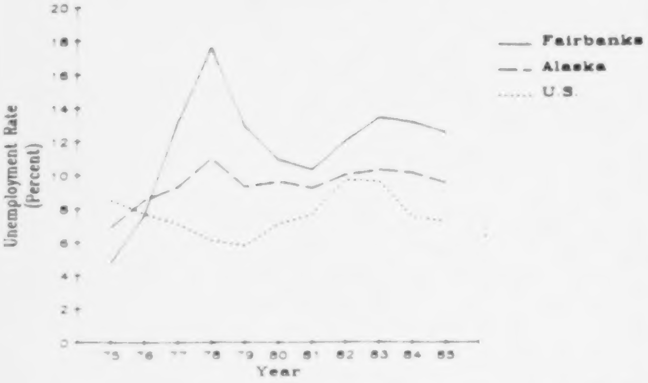
Unemployment Rates Do Not Reveal Everything

Though the 1986 unemployment rates indicate a deteriorating employment picture, they do not reveal the subtle changes that occur when employment is declining. Competition for jobs in Fairbanks through most of the 1980s was vigorous, but job opportunities did exist. Fairbanks' economy was growing rapidly, creating a fluid labor market. People who were employed switched jobs because they were promoted or found better opportunities. This provided additional openings for job seekers. Though unemployment may have remained high throughout the first half of the 1980s, job seekers could be relatively sure they would eventually find employment. Seasonal workers, such as construction workers, could also be reasonably assured when laid off for the winter season that they could find employment during the next construction season.

In 1986 this is no longer the case. Not only are fewer new jobs being created, but those people already employed tend to change jobs less. The seasonal worker can no longer be assured of finding employment the next year and the new job seeker will find it much more difficult to find employment at all. In addition, many workers already employed are not sure they will remain employed.

The unemployment picture is not likely to improve in the near future and unemployment rates may remain high for a longer period of time than during past downturns. One reason a higher unemployment rate may persist for a longer period of time is the possibility that people

Figure 1
Annual Average Unemployment Rates
Fairbanks, Alaska, and U.S.



will be more hesitant to leave Fairbanks than they were in the past.

The pipeline boom was seen as temporary and was dominated by a mobile group of people, young single males. By contrast, the boom of the 1980s appears to be more permanent than the pipeline boom and because it affected all industries in the economy, the population that came to Alaska during this boom was not dominated by the single male but was more balanced. This less mobile population will have more difficulty leaving. In addition, far more two wage-earner families exist today than existed a decade ago, and they may be more reluctant to leave during a downturn. While a more stable population could inflate the unemployment rates in the long run, it could also provide more stability to the economy than was experienced during past economic downturns.

Additional factors should be considered when assessing the effects of a declining economy on a labor market. During a longer economic contraction the number of people who give up looking for employment tends to grow. Known as discouraged workers, these individuals would not be counted in the unemployment figures. To be counted as unemployed a person must make some effort to find employment. Presently there is no way to account for the size of the discouraged worker group. Another unmeasured casualty in a declining labor market is the workers whose hours have been shortened or who can find only part-time work but would prefer full-time employment.

Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

	p/ 9/86	r/ 8/86	9/85	Changes From: 8/86	 9/85
Nonag Wage & Salary	30350	30650	31700	-300	-1350
Mining	200	250	250	-50	-50
Construction	3250	3350	4400	-100	-1150
Manufacturing	650	650	650	0	0
Trans Comm & Utilities	2950	3000	3150	-50	-200
Trucking & Whseing	400	450	500	-50	-100
Air Transportation	1000	1000	950	0	50
Other Trans Comm & Utilities	1550	1550	1700	0	-150
Trade	6400	6600	6500	-200	-100
Wholesale	900	900	1050	0	-150
Retail	5500	5700	5450	-200	50
Gen Mer & Apparel	500	600	500	-100	0
Food Stores	850	850	800	0	50
Other Retail Trade	4150	4250	4150	-100	0
Finance-Ins & R.E	1050	1100	1100	-50	-50
Services & Misc	6200	6500	6000	-300	200
Government	9650	9200	9650	450	0
Federal	2900	3000	2800	-100	100
State	4050	3600	4150	450	-100
Local	2700	2600	2700	100	0

Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/ 9/86	r/ 8/86	9/85	Changes From: 8/86	 9/85
Nonag Wage & Salary	34850	34800	36050	50	-1200
Mining	400	400	350	0	50
Construction	3450	3550	4650	-100	-1200
Manufacturing	700	700	700	0	0
Trans Comm & Utilities	3350	3350	3550	0	-200
Trade	6900	7100	7000	-200	-100
Finance-Ins & R.E	1150	1150	1150	0	0
Services & Misc	6700	7100	6400	-400	300
Government	12200	11450	12250	750	-50

Eventually the unemployment rates will begin to fall regardless of whether or not the economy improves as people eventually leave or drop out of the labor force. For example, 1979s unemployment rate fell to 12.9% from 17.6% in 1978 in spite of the fact that employment fell by 1,000 that year.

The unemployment figures could begin to improve as early as late 1987 because of out-migration of unemployed workers and discouraged workers dropping out of the labor market. However, not until employment growth resumes will the employment picture really improve.

Gulf Coast

By Neal Fried

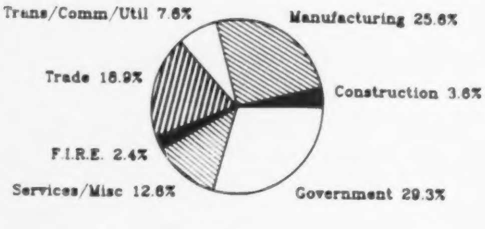
Valdez Marches to a Different Drummer

Looking at employment figures, Valdez appears to have missed the oil revenue boom which impacted much of the state during the past five years. Despite the terminus for the oil pipeline being an integral part of the Valdez economy, employment in Valdez did not grow with the same fervor enjoyed by much of the rest of the state. Statewide employment grew 33% from 1980-1985 compared to 5% in Valdez. This is somewhat of a surprise as the two major employers in Valdez are Alyeska Pipeline Service Company and state government.

The transportation industry, which includes Alyeska Pipeline Services Company, is Valdez's largest private sector industry. In 1985, 22.5% of the city's wage and salary employment was concentrated in this industry compared to 8% statewide. Transportation employment grew during the early 1980s and peaked at 504 in 1982. By 1985 transportation employment had fallen to 416 as oil terminal operations and other employers pared down their work forces.

State government, the second largest employer in Valdez, employs

Cordova Employment by Industry 1985



Source: Ak. Dept. of Labor, Research & Analysis Section

City of Valdez
Employment by Industry
1980-1985

	1980	1985	Percent Change 1980-1985
Total Employment	1746	1850	6.0%
Construction	226	112	-50.4%
Manufacturing*	9	171	1800.0%
Trans. Comm & Utilities	449	416	-7.3%
Trade	105	155	47.6%
Finance-Ins. & R.E.	36	20	-44.4%
Services & Misc.	242	251	3.7%
Government	680	725	6.6%
Federal	18	15	-16.7%
State	404	399	-1.2%
Local	259	311	20.1%

* Manufacturing and fish processing can be used interchangeably in this table.

Source: Alaska Department of Labor, Research & Analysis Section, ES-202.

21.6% of the wage and salary work force—more than double the statewide share. Harborview, an institution for persons with developmental disabilities, is the single largest state employer in Valdez. State government employment has remained close to 400 the past five years. Some agencies lost employment and others gained, but there was little net change. This is surprising since state government employment grew by 33% statewide during this period.

Growth Industries

One dynamic industry in Valdez has been fish processing. Fish processing employment grew from less than 10 in 1980 to 171 in 1985. Two sizeable fish processing plants are operating in Valdez, and a number of smaller ones operate during the summer season. Without this injection of new fish processing jobs, total employment would have made no gains during this period.

Although available employment statistics do not have an industry category for tourism, it appears this industry added to employment growth in trade during the last five years. In Valdez trade employment climbed by 50 jobs.

Construction — A Different Story

Statewide the construction industry helped push statewide employment to record heights during the first half of the 1980s. Construction employment statewide grew 75%, but in Valdez construction employment declined during this period. This comparison may not be fair. Valdez's major post-pipeline construction period came in the late 1970s and early 1980s. Because of its newly acquired tax base, Valdez was able to fund a number of large capital projects while much of the remainder of the state was still in a post-pipeline slump. Valdez relied on its own resources instead of the state to finance many of these projects. They include a new civic/convention center, a $48 million port facility, a grain silo and a number of other projects. Though the timing was different, Valdez, like many of Alaska's communities, now has major new facilities which did not exist a decade ago.

Valdez Now Fits Statewide Trends

More recent trends indicate that Valdez's economy is following the economy of the rest of the state. First quarter 1986 employment statistics show declines in employment in Valdez. Valdez is now being adversely affected by falling oil revenues. Both state and local government are beginning to feel the pinch of the state's budget shortfalls. The oil industry is pruning its work force, and revenues for any type of construction are becoming scarce. This all adds up to a declining economy.

Valdez has one potential project lined up which could reverse this trend in the short run. Alaska Pacific Refining is proposing to build a refinery in Valdez capable of producing 100,000 plus barrels of refined product per day. If all the problems are solved, this company plans to begin construction in 1987 and operation in 1988. If this project gets underway in 1987, Valdez may escape the fate of a declining economy. Instead Valdez may experience a temporary construction boom and a permanently larger work force when the operations staff for the refinery is hired. In the event that the refinery project does not work out or is delayed, Valdez will likely join the rest of the state for at least a couple of years of stormy economic weather.

Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/	r/		Changes From:	
	9/86	**8/86**	**9/85**	**8/86**	**9/85**
Nonag. Wage & Salary	22850	25600	22650	-2750	200
Mining	850	900	850	-50	0
Construction	2050	2050	2600	0	-550
Manufacturing	4400	7300	3450	-2900	950
Food & Kindred Prod.	3700	6600	2750	-2900	950
All Other Mfg.	700	700	700	0	0
Trans. Comm. & Utilities	1800	1700	1900	100	-100
Trade	3950	4150	4100	-200	-150
Wholesale	600	600	600	0	0
Retail	3350	3550	3500	-200	-150
Finance-Ins. & R.E.	650	650	650	0	0
Services & Misc.	3500	3700	3450	-200	50
Government	5650	5150	5650	500	0
Federal	550	550	550	0	0
State	1650	1550	1750	100	-100
Local	3450	3050	3350	400	100

Current Trends

The Gulf Coast region's employment began its winter decline in September. There were 2,750 fewer wage and salary jobs in September than in August. Most of this loss came in fish processing as the salmon season continued to wind down. Trade and services employment declined as the tourism season began to come to a close. Government was the only industry to make significant gains in September as secondary and community colleges staffs returned to work.

Southeast Alaska

By John Boucher

The Transportation Industry in Southeast Alaska 1980-85

The transportation industry changed dramatically in Southeast Alaska during the last five years. Employment in the transportation industry decreased 15 percent and some types of transportation employment disappeared almost entirely. Despite the contraction, the transportation industry remains a vital part of Southeast Alaska's economy.

The geography of Southeast Alaska makes land based modes of transporting people, goods, and services to Southeast Alaska communities impossible. Except Haines, Skagway, and Hyder, which are connected to mainland road systems, communities in Southeast Alaska are transportation islands. As such, many Southeast Alaska communities are accessible only by air and marine transportation.

Market size and amount of goods shipped make a private transportation industry economically viable only in Southeast Alaska's larger communities. In general, year round transportation of people, goods, and services to many Southeast Alaska communities is a losing proposition; therefore, the State of Alaska's Department of Transportation and Public Facilities must serve the transportation needs of many Southeast Alaska communities. As a result the Alaska Marine Highway System (AMHS), with over 800 employees, is the largest transportation related employer in Southeast Alaska.

Table 1
Transportation Employment 1980-85

	1980	**1981**	**1982**	**1983**	**1984**	**1985**	**Percent Change 80-85**
Water Trans.	608	542	447	486	452	470	-22.7%
Air Trans.	698	760	634	492	469	468	-33.0%
Railroad	173	172	123	15	11	10	-94.2%
Other Trans.	367	383	360	360	380	433	18.0%
Alaska Marine Highway System	803	803	803	870	870	870	8.3%
TOTAL	2649	2660	2367	2223	2182	2251	-15.0%

Despite being the transportation industry's largest employer, the Alaska Marine Highway System (AMHS) is not a good indicator of transportation employment trends in Southeast Alaska. Since it is publicly owned, the AMHS is subject to budget constraints of the State of Alaska rather than independent economic events. If the AMHS was subject to regular economic conditions, employment would most likely have decreased from 1980 to 1985. Unlike the Alaska Marine Highway System, private industry transportation employment decreased in every category except "other transportation" from 1980 to 1985. Each category of the transportation industry has struggled or succeeded for different reasons. There were a number of economic factors which affected the water, air, rail, and "other transportation" categories of the transportation industry.

Employment in the water transportation sector has declined since 1980 because of its ties to the lumber industry. Privately owned water transportation employment in Southeast Alaska is dependant upon the amount of commercial goods shipped. The lumber and paper products industry is Southeast Alaska's biggest exporter of goods. When this industry fell upon hard times in the late seventies, employees in the water transportation industry were among the first to be affected.

Air transportation employment includes certified air carriers, such as Alaska Airlines, and small noncertified carriers operating small taxi and passenger services. Both segments of the air transportation sector have declined since 1980; the decline is attributed to deregulation of the air carrier industry. Wien Airlines entered the Southeast Alaska market in late 1980 but discontinued operations by 1983. This helps explain the temporary jump and then decline in air transportation employment. Meanwhile, many small air carriers have consolidated their operations because of increased competition, higher insurance costs, and lower amounts of traffic.

Southeast Alaska railroad transportation employment has all but disappeared since 1980. In 1980 the White Pass and Yukon Railroad was the largest employer in Skagway with over 180 employed. The railroads primary source of income was shipping ore to the port in Skagway from the Cyprus-Anvil mine near Whitehorse. After the mine closed, the railroad ceased to be profitable and the White-Pass and Yukon shut down in October 1982. When it closed, the railroad eliminated 160 jobs and an annual payroll of over 4.5 million dollars. The State of Alaska and the Yukon Territory recently agreed to keep the highway from Skagway to Whitehorse open on a year round basis. This agreement dashed any hope that the railroad would reopen.

The "other transportation" sector of the transportation industry is dominated by local passenger transportation. This category is where taxi

Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

	p/ 9/86	r/ 8/86	9/85	Changes From: 8/86	9/85
Nonag. Wage & Salary	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Construction	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manufacturing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Food & Kindred Prod.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lumber & Paper Prod.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
All Other Mfg.	250	250	250	[illegible]	[illegible]
Trans. Comm. & Utilities	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Trade	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wholesale	400	400	400	[illegible]	[illegible]
Retail	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Finance-Ins. & R.E.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mining, Services & Misc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Government	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Federal	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
State	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Local	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

cabs, tour bus operators, and school bus services are counted. Growth in this sector of the industry is due in large part to the burgeoning tourist industry. The major bus tour operator, Westours, has grown steadily since 1980. Although tour bus operations provide predominantly seasonal employment they have been a catalyst for growth within this sector. New tour companies entering the market as well as small van tour operators have added to the growth in this sector. School bus drivers have also steadily increased since 1980 as the school population of the region has increased.

As indicated earlier, the Alaska Marine Highway System (AMHS) is the single largest employer in the transportation industry in Southeast Alaska. Since 1980, there has been little change in employment in the AMHS. In 1983 a reorganization took place which brought some supply and personnel workers, who were not previously under the Alaska Marine Highway System, into their Division.

Future of Transportation Employment in Southeast Alaska

Future employment patterns in Southeast Alaska's transportation industry will not deviate dramatically from the trends that emerged from 1980 to 1985. The most significant event on the horizon is how the Alaska

Marine Highway System (AMHS) will adjust—given the current fiscal outlook for the state. The AMHS avoided the budget ax in the last belt-tightening session, but that took intervention by the Office of the Governor. In the long term, AMHS would be fortunate to keep its current level of funding. Barring increases in revenue to match the shortfall in the State's contribution, AMHS will probably have to trim back operations.

The water transportation and air transportation industries figure to follow employment trends established during the past five years. Water transportation's future will be tied to the fortunes of the wood products industry while competitive pressures will keep air transportation employment close to its current levels.

The "other transportation" sector should continue to grow, but probably not as rapidly as during the past five years. Population growth pressures have subsided and the need for more local passenger transportation will not be as acute. Tour operators should continue to provide some impetus for growth in this industry.

Summary

Transportation industry employment in Southeast Alaska is divided into a public and private sector. While the public portion of the industry remained stable from 1980 to 1985, employment losses in the private air, water, and rail transportation sectors put the transportation industry among the largest employment losers in the region during this period. Competitive pressures and world economic events such as falling mineral prices were two of the causes of the employment drop. Because private portions of the industry should level off during the next few years, the future employment outlook of the industry depends on the degree to which the Alaska Marine Highway System must adjust to declining state oil revenues.

Current Trends

Southeast Alaska wage and salary employment decreased 2.2 percent to 31,250 jobs from August to September. The drop in employment was due to the losses of peak summer employment related to the fishing industry. August is traditionally when Southeast Alaska canneries are working the most people. When salmon season ends, employment drops off rapidly. Employment in seafood processing dropped by 600 jobs, which accounted for the lion's share of the 850 jobs lost during the month. Government was the only industry to gain jobs during September. This is because of the beginning of the 1986-87 school year, in both the local school districts and the University of Alaska.

Southeast Alaska unemployment rates continued to stay near year ago levels. This September unemployment in Southeast was 7.9 percent, up one half of one percentage point from 1985. The Prince of Wales-Outer Ketchikan census area had the highest unemployment in the region at 10.3 percent while Sitka and the Wrangell-Petersburg census areas were lowest at 5.7 percent.

Hours and Earnings

By John Boucher

Current Trends

For the second month in a row, manufacturing hours and earnings displayed the biggest change from the previous period. The salmon season typically have hours worked rising rapidly during the peak of the season and then tailing off as the end of the season approaches. Hourly earnings on the other hand tend to decrease as the season hits its peak and then rise as the season winds down. This is due to the low wages paid to peak time employees in the fish processing industry. While these workers tend to make much lower wages than the year round cannery employees, they work tremendous amounts of overtime to process the fish. The influx of these peak time employees is the single largest influence on manufacturing wages during the summer.

Year to year comparisons are still generally unfavorable in both hours worked and the average hourly earnings. In September, the average weekly hours and average hourly earnings tended to range between 90-96 percent of the level that they were one year ago.

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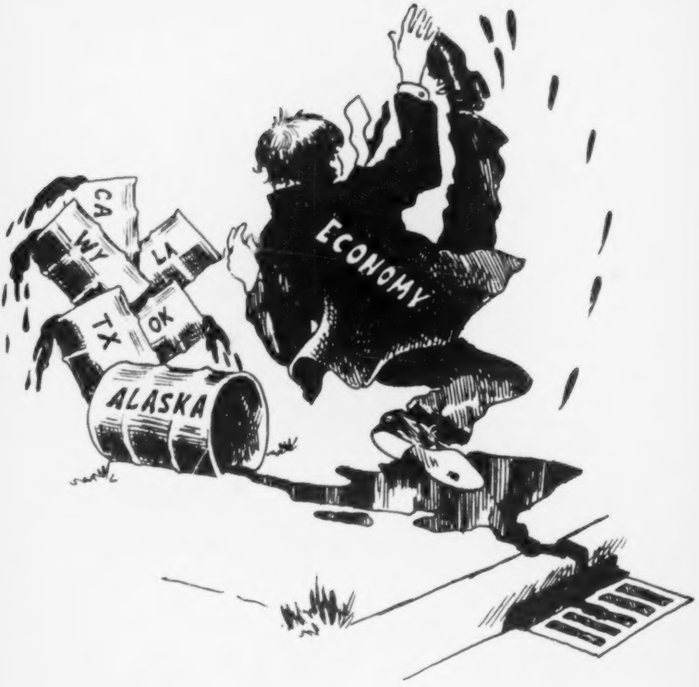
DECEMBER 1986
ALASKA ECONOMIC TRENDS

aska Department of Labor Steve Cowper, Governor, State of Alaska


ECONOMY
CA
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ALASKA

The Oil Patch Slide—
How Alaska's Economy Compares to Other Oil States

Alaska Economic Trends

Steve Cowper, *Governor, State of Alaska*

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1985.

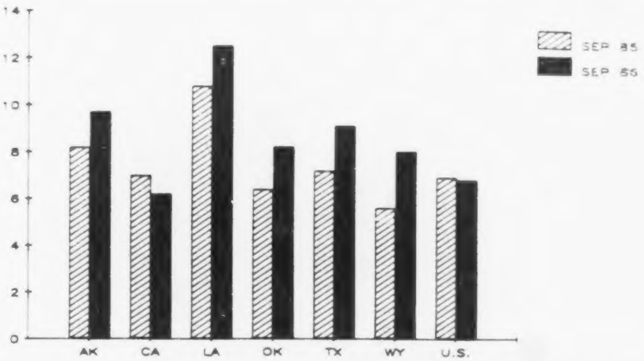
P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

The Oil Patch Slide—How Alaska's Economy Compares To Other Oil States

By Neal Fried, Greg Huff and Judy Hallanger

Record unemployment, revenue shortfalls, housing auctions, bank failures, vacant office buildings, and layoffs are not just headlines in Alaska's newspapers: they can also be found in newspapers in most of the country's other major oil producing states. (In this article we define an oil-producing state as a state which produces over 100 million barrels of petroleum per year.) Almost all other major oil-producing states are sharing the economic woes of plunging oil prices. The economies of Louisiana, Oklahoma and Wyoming have been battered. Texas is faring slightly better. Only California's economy is thriving. How is Alaska faring compared to the other oil-producing states?

Analysts predicted that lower oil prices would fuel an economic boom in the nation, but they did not take into account how rapidly these lower prices would send many of the oil-producing states' economies into a tailspin. The losses have been so great that they are a drag on the national economy. In the long run lower energy prices may bode well for the national economy, but they create an uncertain future for the oil producing states.



Unemployment Rates
September 1985 and1986

Source: Bureau of Labor Statistics

Even before oil prices plunged below $20 per barrel in February of this year or below $10 in April, the oil producing states' employment levels were beginning to feel the adverse effects of declining oil prices. With the exception of California, the remaining oil-producing states' unemployment rates began to climb above year-ago levels in late 1985, while the nation's unemployment rate continued to inch downward. Louisiana's unemployment rates were already at the double digit level in 1985, and Alaska's and Wyoming's rate joined it in 1986. Louisiana holds the distinction of having the highest unemployment rate among the oil patch states and, for a number of months the highest unemployment rate in the nation.

All but California's economy could be classified as being in a recession. A stronger term, "depression," has been used to describe the situation in Oklahoma and selected communities within many oil states. The oil producing states' economies have reacted differently to declining oil prices because of the significant differences in the structure of their oil industries and economies.

Differences and Similarities in the Oil Patch

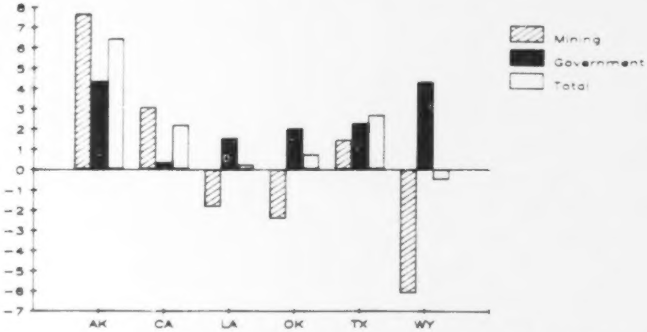
Although Alaska is the second largest oil-producing state behind Texas, the present size of its oil extraction work force is smaller than any of the large producers. For example Wyoming has an oil extraction work force almost twice as large as Alaska's but produces only one fifth the volume of oil (Table 1). Alaska's oil fields are large and more capital intensive. Alaska's oil patch is also completely dominated by large multinational corporations, with more financial muscle

Table 1
Oil Production and Employment
1985

	Crude Oil Production (thous. bbls.)	Oil and Gas Extraction Employment	Production Per Employee
Alaska	666,233	8,810	76
California	423,877	39,809	11
Louisiana	508,239	78,500	6
Oklahoma	162,739	63,288	3
Texas	888,831	249,098	4
Wyoming	128,514	14,643	9
U.S.	3,274,553	578,096	6

Source: Petroleum Independent, Sept. 1986

Average Annual Growth Rate for Mining, Government and Total Employment 1980 – 1985

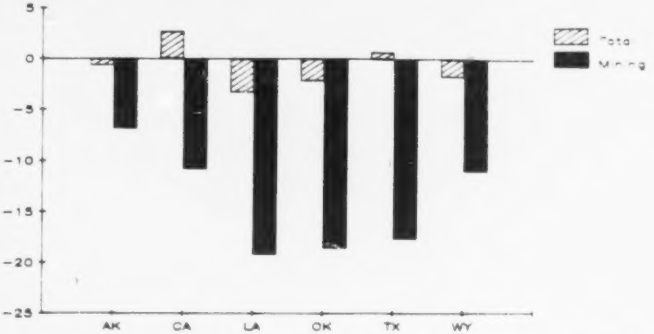


Source: Bureau of Labor Statistics

to ride out a downturn in prices than the thousands of independents and wildcatters which operate in other states. That Alaska's oil fields are capital intensive and dominated by large companies may explain why Alaska's oil and gas related employment has the smallest percentage declined in all the major oil producing states. During the first nine months of 1986, Alaska's employment in the oil industry declined 7% compared to 19% in Louisiana and Oklahoma, 18% in Texas, and 11% in Wyoming and California.

Because Alaska is dependent on oil revenues to operate state and local government, a drop in the price of oil will have a greater impact on Alaska's economy than can be measured by oil related employment. No other oil producing state is as dependent on oil revenues to operate state government as Alaska (Table 2). Alaska received, on a per capita basis, $2,607 in severance taxes in 1985, while Wyoming, the next highest state, received $480. Although Alaska's state and local governments experienced no declines in employment during the first nine months of 1986, there have been indications recently that declines are beginning to occur. Louisiana and Oklahoma have already lost employment on the local and state levels (approximately 1 percent), but the remaining states continue to indicate growth in state and local government employment. All of the states with the exception of California are presently discussing additional layoffs or the possibility of layoffs.

Percent Change in Mining Employment and Total Employment 1985 to1986*



*Based on 9-month averages. Source: Bureau of Labor Statistics.

California is a large oil producing state whose economy has not been affected by the decline in oil prices. California's economy is the largest in the nation, and its oil industry, though the fourth largest producer in the nation, is relatively unimportant to the state's overall economy. For example, less than one-half of one percent of California's wage and salary employment is employed in oil and gas extraction compared to 4% in Alaska. Less than 3% of California's state revenues come from oil revenues compared to Alaska's 84%. California's economy has benefited from the decline in oil prices as energy

Table 2
State and Local
Severance and Production Taxes
Paid by the Petroleum Industry

	Total Taxes Paid	Per Capita
Alaska	$1,358,344,000	$2,607
California	$15,146,000	$1
Louisiana	$731,760,000	$163
Oklahoma	$709,364,000	$215
Texas	$2,163,018,000	$132
Wyoming	$244,316,000	$480

Source: Petroleum Independent, Sept. 1986 costs to other industries have improved. In 1986 California's wage and salary employment has thus far grown by a healthy 2.7%, despite a 11% decline in employment in its oil and gas extraction sector.

Oklahoma, a state far more reliant upon oil production and petroleum related employment, is another story altogether. Approximately 5% or 56,000 of its wage and salary employment is directly employed in oil & gas production. Employment in this sector has fallen by 19% in 1986—13,000 jobs have been lost in this industry alone. These losses have reverberated throughout Oklahoma's economy, causing a total loss of 26,000 jobs during the first nine months of 1986. Only one industry in Oklahoma (services) has survived this period without losses.

The structure of Oklahoma's oil industry is partially responsible for the devastation declining prices have brought. More than half of Oklahoma's oil is produced from stripper wells (those which produce ten barrels of oil or less per day) which require more labor for each barrel of oil produced. With the decline in oil prices many of these wells have simply been shut down because the cost of producing a barrel of oil exceeds the price per barrel. The labor intensity of Oklahoma's oil production is clearly illustrated by comparing it to Alaska (Table 1). Oklahoma's total oil production for a year is one quarter the volume of Alaska's; however, more than seven times as many workers are employed in its oil and gas industry. With so many marginal oil wells and such a labor intensive industry, oil price declines have a disproportionate impact on Oklahoma's employment picture. In addition, Oklahoma depends on oil revenues for 12% of its state operating budget. Presently, it is operating with an anticipated deficit, expecting a $200 million shortfall this coming year. Layoffs have already occurred in state and local government and more are expected to follow.

Louisiana's picture is not that different from Oklahoma's—although possibly more desperate. Louisiana's unemployment rate has remained above 11% during all of 1985 and 1986. Its employment declines have been steeper and its unemployment rate the highest in the nation. During the first nine months of 1986 a total of 52,200 jobs have been lost. This represents a 3% loss in total employment, the largest among all oil producing states. Of this total loss, 15,600 jobs have been in the oil and gas industry alone. This represents a 19% loss making Louisiana and Oklahoma the biggest losers in the oil and gas industry of the oil producing states.

Texas and oil are inseparable. Texas is the largest oil producer in the nation. Its oil extraction industry employed more than 250,000 workers in 1985 compared to Alaska's 8,800, though its oil production was only 33% larger than Alaska's. Approximately 47,000 jobs were lost in the Texas oil and gas industry in 1986, an 18% decline. Half of Texas industries have suffered losses. Unemployment rates climbed to 9%, the highest in Texas since the post-depression years. State government is facing a deficit of one billion dollars.

Total employment in Texas, however, continues to show slight signs of growth, even though oil is the most important industry in Texas. Texas' economy has diversified over time and continues to do so. High tech industries have made major contributions to the Texas economy. High tech research and manufacturers such as Texas Instruments, Compaq Computers, and Microelectronics & Computer Technology Corporation have located in Texas. Medical and space research are also becoming increasingly important in Texas. This has helped Texas absorb the oil price shock more easily than Louisiana and Oklahoma.

When Oil Prices Were Higher: 1980-1985

When average U.S. wellhead oil prices increased beyond $20 per barrel in 1980 and hit $31.77 per barrel in 1981, a flurry of economic activity in the major oil states resulted. Employment levels in the major oil producing states expanded, deviating from the recessionary trend of many non-oil-states. But prices began to weaken in 1982, and over the next three years the average wellhead oil price in the U.S. fell from $31.77 to $24.08 per barrel. The direction of the oil-producing states' economies diverged—Wyoming, Louisiana and Oklahoma began as early as 1982 to struggle with serious economic problems, whereas Alaska, California and Texas prospered through 1985.

Alaska was the only oil state with five consecutive years of employment growth from 1980 to 1985. California, Louisiana and Wyoming experienced employment declines in 1982 as a result of factors related to the concurrent national recession and sharp declines in oil exploration and drilling activity. The California economy expanded rapidly after 1982, while Louisiana and Wyoming had two consecutive years of employment losses. In fact, Wyoming had a 7% loss in 1983, the largest single one year decline in employment of any of the oil states. Employment in Oklahoma and Texas grew through 1982 but by the following year the effects of falling oil prices and the decline in oil related employment caused total employment to fall. Nineteen eighty-four brought a reprieve to Texas, Wyoming, Louisiana and Oklahoma as idle oil rigs went back to work (Table 4). Seismic activity, however, continued to decline (Table 3) suggesting at that time that the increases would be only temporary. Indeed by the following year, any hope of an upturn in drilling activity was gone as prices continued to decline. Once again the economies of Louisiana and Oklahoma retreated into a recessionary trend. Wyoming and Texas continued

Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 9/86	R/ 8/86	9/85	P/ 9/86	R/ 8/86	9/85	P/ 9/86	R/ 8/86	9/85
Mining	1152.41	1149.65	1255.19	50.5	51.6	50.9	22.82	22.28	24.66
Construction	1081.30	1050.62	1112.38	43.2	42.9	44.8	25.03	24.49	24.83
Manufacturing	409.78	476.25	501.84	32.6	47.2	40.8	12.57	10.09	12.30
Food & Kindred Prod	258.82	408.24	353.23	25.3	48.6	37.3	10.23	8.40	9.47
Lumber & Paper Prod	686.83	689.23	687.59	49.2	47.5	48.8	13.96	14.51	14.09
Trans. Comm. & Utilities	552.96	559.50	620.93	36.0	37.3	39.6	15.36	15.00	15.68
Trade	380.29	372.81	407.49	33.3	33.8	34.1	11.42	11.03	11.95
Wholesale	513.32	502.46	566.23	36.2	37.0	37.9	14.18	13.58	14.94
Retail	334.95	327.98	350.54	32.3	32.7	32.7	10.37	10.03	10.72
Finance-Ins. & R.E.	379.89	390.77	426.38	33.5	35.3	37.5	11.34	11.07	11.37

1/ Prepared in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES. Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

to have employment growth in 1985, although layoffs in the oil related industries were heavy.

The decline of oil prices in 1981 from the peak of $31.77 per barrel left many exploration and drilling crews idle, but both the number of crude production wells and their output continued to increase into 1985. For example, seismic exploration activity in the top oil states fell 43% and the number of rotary rigs operating fell 50% between 1981 and 1985; however, the number of production wells in the six major oil producing states increased 19.5%, and their combined oil output increased by over 106 million barrels, a 4% increase. The oil states did not equally contribute to the increased production and development. Alaska was the prime contributor to production increases, while Texas' oil production continued on a trend of declining output, which began in 1972. Oklahoma, Louisiana and Wyoming had oil production increases between 1980 and 1985, but these levels were significantly below their peak production of earlier years (1927, 1971 and 1970 respectively).

From 1980 to 1985 employment in Alaska grew at a faster rate than any other major oil state--over two times faster than in Texas, the next fastest growing state. California's employment growth rate was a close third, followed by Louisiana and Oklahoma. Wyoming's 1985 employment levels were below the 1980 levels.

In Alaska the construction industry was the fastest growing industry during this period. Because several strong construction seasons be-

Table 3
Seismic Exploration Activity
1980-1985 for Major Oil States
(Crew Months)

	1980	1981	1982	1983	1984	1985
Alaska	37	82	129	58	79	48
California	157	192	221	186	152	149
Louisiana	654	501	563	423	436	280
Oklahoma	169	301	256	316	231	202
Texas	1438	1745	1583	1353	1199	932
Wyoming	274	317	253	323	306	163
U.S.	4962	5877	5676	4943	4679	3494

Source: Petroleum Independent, September, 1986.

Note: Data include government, and university activity, but exclude gravity, magnetic and other geophysical methods.

ginning in 1980 offset some weak seasons in 1984 and 1985, construction employment in Alaska averaged 12% growth over the period. This was three times the growth rate of California's construction employment and eight times the employment growth rate of Texas' construction industry.

Employment growth in the trade industry was Alaska's second fastest growing industry followed by finance, insurance and real estate, then services. In all the other major oil states and services industry was the fastest growing industry, except in Wyoming where government employment growth was number one.

Although Alaska had the honors in terms of employment growth, it also had the highest unemployment rate among the major oil states in 1980 while Wyoming had the lowest with a 4% unemployment rate. Oklahoma the following year had the lowest unemployment rate among the six major oil states and the country. Before 1982 all the oil states except Alaska had an unemployment rate below the national average. In 1982, Louisiana took the lead from Alaska by recording an unemployment rate of 10.3% and has since maintained an unemployment rate greater than Alaska's. Oklahoma and Wyoming had unemployment rates lower than the national average until 1985 despite declines in total employment. California's unemployment rates paralleled the directions of the national rate, but were slightly higher. The unemployment rates in Texas stayed well below the national rate until 1985 when both rates were at 7.1%.

All the oil states had population increases from 1980 to 1985, but Alaska had the highest percent increase. Alaska's population expanded from

Table 4
Rotary Rigs Operating
1980-1985 For Major Oil States

	1980	1981	1982	1983	1984	1985
Alaska	14	23	22	14	14	20
California	120	155	129	106	107	81
Louisiana	427	456	343	282	310	283
Oklahoma	397	698	622	285	319	252
Texas	987	1317	990	797	850	680
Wyoming	155	191	143	96	115	93
U.S.	2909	3970	3105	2232	2428	1980

Source Petroleum Independent, September, 1986

Note. Data include offshore rigs

402,000 people in 1980 to 539,000 in 1985 nearly a 34% change. This growth was enough to cause Alaska to surpass Wyoming in population in 1985. The slowest population growth was in Louisiana where the number of people increased 6.5% from 1980 to 1985. During this period the population growth for the other oil-producing states was Wyoming, 8.3%; Texas, 15%; California, 11.4%; and Oklahoma, 9.1%.

Alaska is a newcomer to the oil big leagues. Not until 1977 did Alaska become a leading oil-producing state. Alaska quickly rose to be the second largest oil producing state in the country, replacing Louisiana in 1979. In that year Alaska produced 16.4% of the total U.S. domestic production, 511.3 million barrels. Alaska's production increased to over 20% of the total U.S. domestic production in 1985, 666.2 million barrels.

Perhaps the most striking fact about Alaska's oil producing status is the amount of oil each Alaskan well produces. Because of the Prudhoe Bay oil field, Alaska's 977 oil wells produced on average 681,917 barrels of oil in 1985 compared to the next highest average output per well of 19,681 barrels per year in Louisiana and the lowest yearly output of 1,580 barrels per well in Wyoming. As the Prudhoe Bay field wells have yielded less production and other fields, with lower yields per well, make-up a larger share of oil production the output per well has fallen. This has been the case since 1980. Only California and Louisiana oil wells have shown an average increase in oil production over the period.

Table 5
Producing Crude Oil Wells
1980-1985 For Major Oil States

	1980	1981	1982	1983	1984	1985
Alaska	642	700	760	672	640	977
California	45591	46362	47231	47197	48542	49874
Louisiana	26014	25320	22380	23376	24508	25823
Oklahoma	78463	82639	91745	95868	99600	103000
Texas	174511	180627	187626	195595	203664	209040
Wyoming	10227	11574	11792	11349	11561	12038

Source: Petroleum Independent, September, 1986.

Note: Data include wells on artificial lift and flowing. Figures as of December 31 each year.

Another striking fact about Alaska's status is the relatively low level of seismic exploration and drilling activity compared to the other major oil states. During the five year period from 1980 to 1985, Alaska's total seismic exploration activity (measured in crew months) was lower than any other state. Alaska's high exploration cost, which can be attributed to Alaska's remoteness, harsh yet fragile environment, and radical seasonal swings, limits the amount of exploration activity. Alaska also had the fewest number of rotary rigs operating. In 1981, a peak year, Alaska had 23 rigs operating compared to Wyoming's 191 rigs (the next fewest number) and Texas' 1,317 (the greatest number); but, the average cost of drilling and equipping a well are greater in Alaska than elsewhere. In 1984 the average cost per well in Alaska was $2.8 million compared to the average cost per well of $756,800 in Louisiana (the next most expensive) and of $318,400 per well in California (the least costly). Only the offshore wells in Texas, California and Louisiana had costs of drilling and equipping a well comparable to Alaska's costs. Alaska's onshore rigs are larger in size than most in the lower 48 and are state-of-the-art, contributing to higher costs of drilling.

The rapid increase in the value of oil was good to Alaska's economy during the early 1980s. Nearly all sectors of the Alaskan economy benefited from high oil prices, but the single largest beneficiary of the high oil prices was state government. Its petroleum revenues increased from $821 million in 1979 to $2.25 billion the following year and peaked at $3.57 billion in 1982. These large revenues provided the state with immense economic clout. When prices fell dramatically in 1986 the state's ability to grow ended. In 1986 Alaska's economy began a down cycle, which is expected to continue into 1987, because of lower oil prices.

Outlook

The long term outlook for Alaska is mixed. On the one hand oil prices are expected to increase in the long-run and Alaska has more proven oil reserves than any other state including Texas. On the other hand the projected North Slope oil production is expected to decline steadily in the 1990s. Although a number of large new fields will be added they are not likely to replace the inevitable decline of the enormous output from Prudhoe Bay. The future price of crude oil will determine the rate and magnitude of the expected oil production declines. Oil prices and the level of oil production are now key in determining state government revenues and the health of Alaska's economy, but, even if oil prices and oil production increase, oil will be playing a less important role in Alaska's future just as it has become less important over time in other oil-producing states.

Alaska

By Edward Eboch

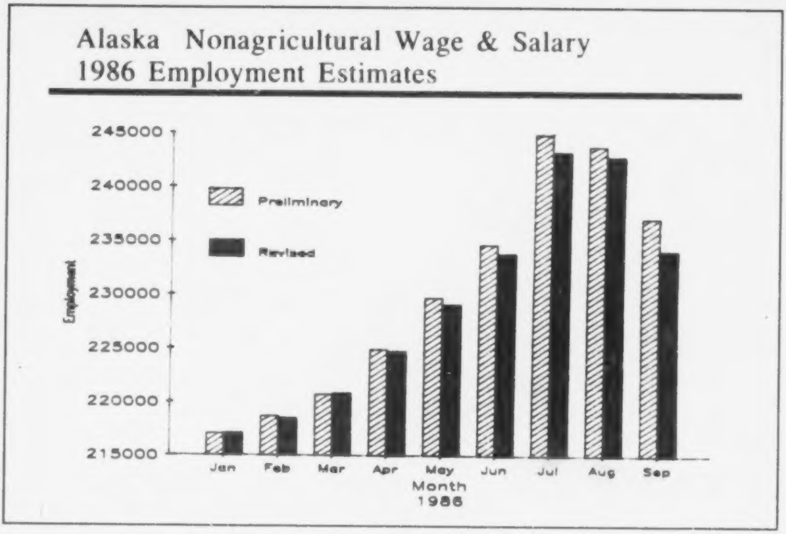
Alaska's economy continued its tailspin in October. The state's unemployment rate (10.8%) reached an all time high for the month of October. Anchorage (8.8%), the Kenai Borough (17.4%), and Juneau (12.0%) also had the highest October rates ever recorded, with Juneau's rate the highest ever. With the possibility of additional cuts in state government spending over the next year, Alaska's economy will continue to suffer employment losses.

Employment losses in October were normal, as construction, manufacturing, and tourist related firms adjust employment for the winter season; however, year-to-year losses of the magnitude now recorded are not typical. Even the loss of jobs after completion of the pipeline, while greater percentage-wise, does not match the breadth of the impact current losses are having on the economy.

After the completion of the pipeline there was a year-to-year loss in employment from October 1976 to October 1977 of nearly 7,000 jobs. The average annual year-to-year loss in employment was approximately 9,000 jobs from 1976 to 1977, a much higher percent of total employment than the current year to year losses. The following year, 1978, employment was on the rise again although employment remained flat from 1978 to 1979.

However, there is a significant difference between the losses then and now. In 1977, the losses in employment were concentrated in construction and construction related trade and services firms. Because it was recognized that the boom in employment would not continue, the secondary industries of trade, services, and finance, insurance, and real estate did not overexpand to support this temporary business activity. While there was a tremendous loss in overall employment from 1976 to 1977, many industries increased employment during this period. More important, the oil and gas industry was expanding, thereby setting the groundwork for the next expansion phase of Alaska's economy.

The current downturn is not restricted to construction and construction related businesses. Unlike the mid-1970s, expectations were that expansion would continue as oil prices rose. Oil companies would continue to increase exploration and development as well as operational personnel. State revenues and therefore state employment would increase or remain at worse constant. In addition, several mining


Alaska Nonagricultural Wage & Salary 1986 Employment Estimates

projects looked as if they would be in operation by the late 1980s. Falling commodity prices (oil and mineral) have changed all this.

The suddenness and size of the changes in the price of oil—the impetus for growth the past several years—has been felt in all sections of the economy. The oil industry was a growing industry with employees that earned good incomes. In addition, expansion of facilities and exploration and development activities contributed to construction industry employment. The spending of the oil industry and its employees offered opportunities in the trade, services, and F.I.R.E. industries. With the current price of oil, the oil industry is reducing direct employment, forcing wage concessions, and reducing expenditures in construction.

The lower price of oil has cut expected state tax revenues dramatically, to less than half that received in 1985. Loss of tax revenues from oil has forced state government to reduce pass through grants to local communities, drop capital projects, and eliminate or reduce services. As a result state and local government employment has declined over the year and many private firms that provide services for the state have cut employment.

With the outlook for hard rock mineral prices still in doubt many mining companies have withdrawn from Alaska and most oil companies have sold their interest in mineral prospects in Alaska. Rather than expanding and therefore providing alternative job opportunities, mining companies have cut back on their operations in Alaska.

Revised Employment Estimates

With structural changes occurring in the Alaska economy it has become more difficult to successfully estimate current employment. As a result the revised employment estimates have been lower than the preliminary employment estimates (see graph). Therefore, the preliminary estimates have tended to understate the severity of employment declines. With seasonal changes behind us it should be possible to better estimate over the month and over the year losses in employment for the next several months, assuming no need to make immediate adjustment to lower oil prices.

The following is a brief explanation of how employment estimates are produced and a discussion of the problems associated with the procedure. Employment estimates are based on a sample of changes in employment provided by employers. There are three problems in making employment estimates, one that must be faced regardless of the economic climate, and two that are a result of the current economic difficulties. There is always a problem with having an adequate sample during the preliminary estimates. With a poor sample in some industries it becomes necessary to use other methods to estimate employment.

We use five methods to estimate employment for cells (subsets) within an industry. (For example, in mining estimates are made for oil and gas, metal mining, coal mining, and nonmetal mining. The results are then aggregated to give the employment estimate for mining, the published cell.) The five methods used to estimate employment are: the employment change in the sample from the previous month; the employment change in the sample from the previous year; the same percentage change as in the actual employment from the same period the previous year; the seasonal change (a factor based on historic percent changes for the month to month change), and analyst judgement.

Along with the modeling methods described above the analyst uses other information to help choose the most probable employment level for the month. When the sample is adequate the month to month sample method is preferred. With a poor sample the seasonal method is used more frequently. Analyst judgement is used when none of the methods appear to reflect current economic conditions. (For example, a large firm that is not in the sample goes out of business.)

The other methods are also used as a check on the month to month sample. When the year to year sample and the seasonal method agree

Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	p/ 10/86	r/ 9/86	10/85	Changes From: 9/86	10/85
Nonag Wage & Salary	224300	234200	235500	-9900	-11200
Mining	7900	8100	9600	-200	-1700
Construction	17000	18300	21500	-1300	-4500
Manufacturing	10400	15200	9500	-4800	900
Food & Kindred Prod	4100	8500	3700	-4400	400
Lumber & Paper Prod	3000	3300	2200	-300	800
All Other Mfg	3300	3400	3600	-100	-300
Trans Comm & Utilities	18800	19800	19200	-1000	-400
Trucking & Whseing	2000	2000	2100	0	-100
Water Transportation	1400	1700	1400	-300	0
Air Transportation	6000	6300	6300	-300	-300
Other Trans Comm & Utilities	9400	9800	9400	-400	0
Trade	44900	46000	47400	-1100	-2500
Wholesale	7700	8200	8700	-500	-1000
Retail	37200	37800	38700	-600	-1500
Gen Mer & Apparel	5600	5600	5700	0	-100
Food Stores	6200	6400	6100	-200	100
Eating & Drinking Pl	13700	14000	14100	-300	-400
Other Retail Trade	11700	11800	12800	-100	-1100
Finance-Ins & R E	12700	12800	13100	-100	-400
Services & Misc	43900	46000	45400	-2100	-1500
Government	68700	68000	69800	700	-1100
Federal	18200	18200	17600	0	600
State	20000	19900	20900	100	-900
Local	30500	29900	31300	600	-800

Prepared in Cooperation with the U S Bureau of Labor Statistics
Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska

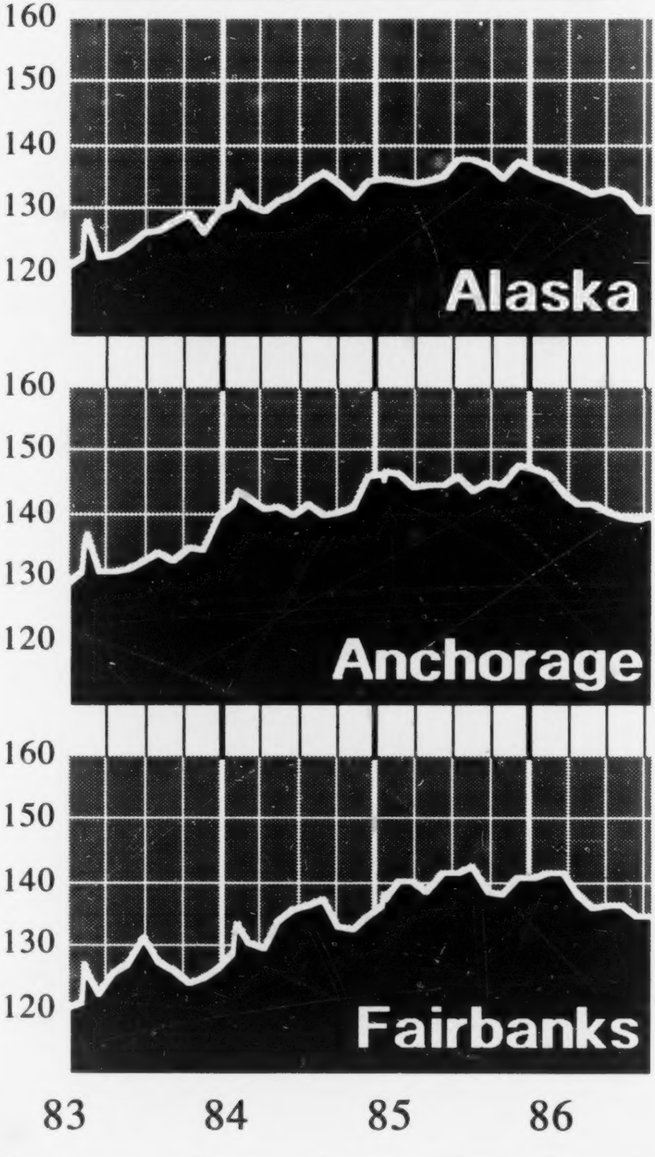
Benchmark date March 1985

p/ Denotes preliminary estimates
r/ Denotes revised estimates

with the month to month sample the analyst is confident of the estimates. With current economic conditions the various methods are less likely to agree. While Alaska has a large sample relative to the size of the state, and the support of Alaska firms is appreciated, our sample has dropped off in some cells recently. As a result the sample has become less reliable as a predictor, especially for the preliminary estimates. As firms drop out of the market other firms may increase employment as a result. If this firm is part of our sample it may indicate a greater level of employment than a complete sample would suggest.

This problem is much worse during the summer months when firms change levels of employment rapidly from month to month. As a result, as the sample has improved for the revised estimates, employment has been revised downward (see graph). While these problems will continue until the economy has arrived at its new base level and employment begins to grow again, employment estimates should be less of a problem over the next several months as employment changes from month to month are less dramatic during the winter.

COMPOSITE NONAG. EMPLOYMENT INDEXES



SEASONALLY ADJUSTED 1983 TO PRESENT

source: ak. dept. of labor

Anchorage/MatSu

By Greg Huff

Current Trends

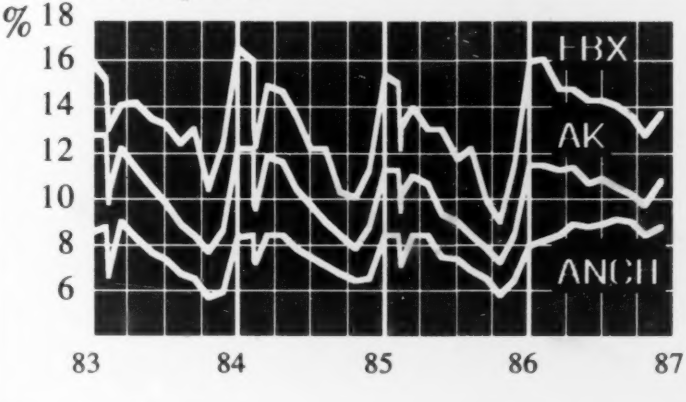
Anchorage's employment statistics for October continue to reflect hard economic times for many Anchorage residents. Compounded by seasonal layoffs, the unemployment rate rose to an all-time high 8.8% for October, 2.4 percentage points above last October. An estimated 10,402 Anchorage workers were unemployed, 2,748 more workers than during the same period last year.

Employment losses have been widespread. Only retail trade, state government, and certain sectors of the transportation, communications and utilities industry had employment gains in October. The retail trade sector had seasonal employment increases as they geared up for the holiday season. The over-the-month gain in state government employment was a result of increases in state education employment, however, compared to last October, state education employment is down 3.1%.

UNEMPLOYMENT RATE

not seasonally adjusted

1983 to present



In the transportation sector, air transportation employment has remained above last year's levels because of the entrance of United Airlines and AirCal into the Anchorage market. Because of extensive flood damage to Alaska Railroad's tracks and bridges, the demand for trucking goods north to Fairbanks was unseasonably high. Without the seasonal decline that normally occurs in October, trucking employment was greater than last year.

The construction industry continued to be the hardest hit by layoffs, both in percent and absolute terms, with employment levels falling by 2,200 or 21.6% from year ago levels. The next hardest hit in terms of percentage, was the mining industry which is primarily oil and gas industry employment. The bulk of the decline in employment was in the seismic and drilling services firms which have been the most severely affected by declining oil prices.

In absolute terms, the loss of 1,350 jobs in the trade industry was second only to construction. Most of the declines in the trade industry are in sectors dependent upon the construction industry, such as hardware and building supply stores. Automotive dealers have been the next hardest hit within the trade industry as employment fell over 11% from last October's level.

The services industry followed the trade industry in employment losses, with 750 jobs less than year-ago. The job losses were concentrated in the business services and construction related services sectors, such as architectural, engineering and surveying firms. Despite declines in these businesses, the service industry as a group continued to register over the year employment gains until August of 1986 when the sectors that were still experiencing some growth could no longer offset the declines in other sectors.

Services: A Closer Look

The following graph illustrates the yearly percent change by month in employment levels for the service industry compared to total Anchorage employment from January 1980 to October 1986. The trends are similar but the services industry grew at a faster rate.

Between 1980 and 1982 employment growth in services was lead by the hotel sector (see table), which increased nearly 40% in two years.

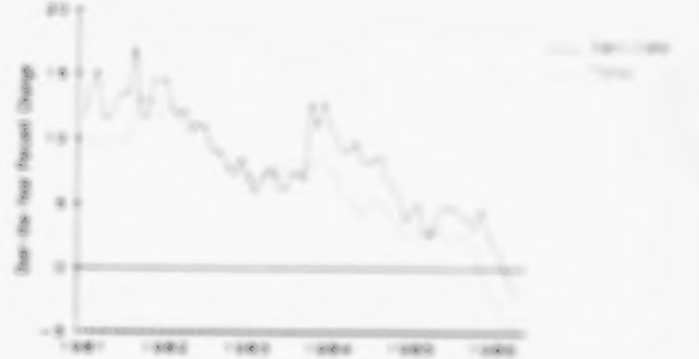
Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 10/86	R/ 9/86	10/85	P/ 10/86	R/ 9/86	10/85	P/ 10/86	R/ 9/86	10/85	P/ 10/86	R/ 9/86	10/85
Alaska Statewide	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Anch.-Mat-Su Region	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Anchorage Borough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mat-Su Borough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gulf Coast Region	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kenai Peninsula Bor.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kodiak Island Bor.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Valdez-Cordova	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Interior Region	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fairbanks North Star Bo	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Southeast Fairbanks	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Yukon-Koyukuk	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Northern Region	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kobuk	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nome	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Slope Borough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Southeast Region	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Haines Borough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Juneau Borough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ketchikan Gateway Bor	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pr. of Wales-Outer Ketch	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sitka Borough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Skagway-Yakutat-Angoon	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wrangell-Petersburg	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Southwest Region	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Aleutian Islands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Bethel	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Bristol Bay Borough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dillingham	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wade Hampton	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

P/ Preliminary R/ Revised [illegible] Benchmark

[illegible]

Change in Services and Total Employment
Anchorage, 1980 – 1986



Business services employment, up by 27%, also grew substantially during those two years. Between 1982 and 1983 the services industry grew at about the same pace as total employment. This was a result of declines in hotel employment, as the Anchorage Hilton reduced employment during remodeling, and a slowing of employment growth in construction related services. The spike in the graph in late 1983 to early 1984 was a result of rapid increases in health and business services.

Anchorage Services Employment
Annual Average
1980-1985

Year	Total Services	Hotel	Business Services	Medical	All Other
1980	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1981	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1982	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1983	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1984	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1985	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: Alaska Department of Labor

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/ 10/86	r/ 9/86	10/85	Changes From: 9/86	10/85
Nonag. Wage & Salary	112250	113700	117850	-1450	-5600
Mining	3500	3500	4150	0	-650
Construction	8000	8400	10200	-400	-2200
Manufacturing	2600	2700	2750	-100	-150
Food & Kindred Prod.	550	600	550	-50	0
Other Mfg.	2050	2100	2200	-50	-150
Trans. Comm. & Utilities	10200	10450	10100	-250	100
Trucking & Whsing.	1200	1250	1150	-50	50
Water Transportation	350	400	350	-50	0
Air Transportation	4150	4100	4050	50	100
Other Trans. Comm. & Utilities	4500	4700	4550	-200	-50
Trade	27450	27450	28800	0	-1350
Wholesale	6200	6250	6650	-50	-450
Retail	21250	21200	22250	50	-1000
Gen. Merchandise	2050	2000	2150	50	-100
Food Stores	3100	3050	3150	50	-50
Eating & Drinking Pl.	8550	8450	8650	100	-100
Other Retail Trade	7550	7700	8300	-150	-750
Finance Ins. & R.E.	8400	8450	9250	-50	-850
Services & Misc.	25700	26100	26150	-400	-450
Government	26400	26750	26750	-350	-350
Federal	9950	10050	9650	-100	300
State	7200	7250	7600	-50	-400
Local	9250	9450	9500	-200	-250

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/ 10/86	r/ 9/86	10/85	Changes From: 9/86	10/85
Nonag. Wage & Salary	120000	121800	126100	-1800	-6100
Mining	3550	3550	4150	0	-600
Construction	8700	9050	11150	-350	-2450
Manufacturing	2700	2800	2850	-100	-150
Trans. Comm. & Utilities	10950	11200	10900	-250	50
Trade	29350	29350	30700	0	-1350
Finance Ins. & R.E.	8850	8900	9250	-50	-400
Services & Misc.	27000	27800	27800	-800	-800
Government	28900	29150	29300	-250	-400

Fairbanks/Interior

By Neal Fried

Fairbanks' Civilian Side of the Military

Approximately 1,800 Fairbanks civilian residents earn their living at Fort Wainwright or Eielson Air Force Base. (Civilian resident includes the spouse of military personnel.) This represents 6% of Fairbanks' total wage and salary employment and 65% of all federal civilian employment in Fairbanks. This makes the military one of the single largest employers in Fairbanks. Additionally, approximately 6% of Fairbanks total payroll and 56% of all federal civilian payroll comes from the military civilian employment on these two military installations.

Federal civilian employment (including military and nonmilitary federal employment) has grown more slowly over the past five years than other industries in Fairbanks. In spite of this, the gains have been impressive compared to the national picture. Nationally, federal employment has remained essentially flat over the past five years compared to 17% growth of federal government employment in Fairbanks. Most of the growth in Fairbanks' federal employment has come from the military, not the civilian agencies.

Over the past five years federal employment was a declining share of Fairbanks' total employment. In 1980, federal civilian employment represented 11% of Fairbanks' total employment, compared to 9% in 1985. This trend will reverse itself, however, as much of Fairbanks' economy contracts and federal employment grows.

Military Keeps Federal Employment Growing

Federal employment will be one of the few sectors of the economy that will grow during the next two years. Military civilian employment increased at Eielson AFB in 1985 and, if the first quarter 1986 employment is a good indication, Eielson's ranks of military civilians will increase in 1986.

Fort Wainwright's federal government employment levels have changed little over the past four years but major gains will likely take place with deployment of the light infantry in January 1987. During the next two years the army has indicated that a total of 1,500 new troops will be arriving at Fort Wainwright. If today's ratio of military civilians to uniformed military (Table 1) is any indication of what the ratio might be in 1987 and 1988, more than 400 civilian jobs may be created with the additional troop strength.

Table 1
Uniformed and Civilian Employment On Fort Wainwright 1982-1986*

Year	Uniformed Military	Military Civilian Employment**	Ratio of Uniformed/ Civilian
1982	2676	728	3.7
1983	2582	761	3.4
1984	2550	770	3.3
1985	2550	787	3.2
1986	2600	802	3.2

Uniformed and Civilian Employment On Eielson Air Force Base 1982-1986*

Year	Uniformed Military	Military Civilian Employment**	Ratio of Uniformed/ Civilian
1982	2390	732	3.3
1983	3232	770	4.2
1984	3332	805	4.1
1985	3362	929	3.6
1986	3338	1000	3.3

Source: AK Dept. of Labor, Research & Analysis Section

* 1986 is First Quarter data.
**Includes all civil service and nonappropriated funded personnel. It does not include private contract personnel.

The growth in the federal civilian sector, which will occur simultaneously with the contraction in much of the remainder of Fairbanks' economy, means the military's presence will regain some of the prominence in Fairbanks' economy which it lost with the development of Prudhoe Bay. By 1988 military civilian employment could make up as much as 8% of total wage and salary employment in Fairbanks, compared to 6% today, and it could make up 68% of all federal employment compared to the present 62%.

Current Trends

More of Fairbanks' industries have joined the ranks of the employment losers. In October only two out of Fairbanks' eight industries remained above year-ago levels. It may be only a short time before the remaining holdouts, manufacturing and services, join the rest of the

Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

	p/	r/		Changes From:	
	10/86	9/86	10/85	9/86	10/85
Nonag. Wage & Salary	29050	30200	30150	-1150	-1100
Mining	200	200	250	0	-50
Construction	2750	3250	3550	-500	-800
Manufacturing	650	650	600	0	50
Trans. Comm. & Utilities	2800	2950	2850	-150	-50
Trucking & Whseing	450	400	450	50	0
Air Transportation	950	1000	900	-50	50
Other Trans. Comm. & Utilities	1400	1550	1500	-150	-100
Trade	5950	6400	6250	-450	-300
Wholesale	900	900	1050	0	-150
Retail	5050	5500	5200	-450	-150
Gen. Mer. & Apparel	550	500	500	50	50
Food Stores	850	850	800	0	50
Other Retail Trade	3650	4150	3900	-500	-250
Finance-Ins. & R.E.	1050	1050	1050	0	0
Services & Misc.	5850	6200	5700	-350	150
Government	9800	9500	9900	300	-100
Federal	2950	2900	2700	50	250
State	4100	3900	4250	200	-150
Local	2750	2700	2950	50	-200

Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/	r/		Changes From:	
	10/86	9/86	10/85	9/86	10/85
Nonag. Wage & Salary	33150	34700	34300	-1550	-1150
Mining	300	350	350	-50	-50
Construction	2950	3450	3750	-500	-800
Manufacturing	650	700	650	-50	0
Trans. Comm. & Utilities	3150	3350	3250	-200	-100
Trade	6500	6850	6650	-350	-150
Finance-Ins. & R.E.	1100	1150	1100	-50	0
Services & Misc.	6250	6700	6100	-450	150
Government	12250	12150	12450	100	-200

industries. Total wage and salary employment fell 1,100 or 4% over the year. The biggest contributor to this decline was once again construction, but other industries are now declining.

The initial declines in trade came largely from the falling demand for building materials as construction activities declined. More recently the losses in this industry have broadened to include eating and drinking establishments and other retail establishments. Because of the present economic uncertainty, consumers seem to be cutting back on discretionary purchases. The declining economy also means there is simply less income to spend on consumer goods, causing the retail trade sector to reduce employment.

Total government employment losses over the year remain small at this time because of the increase in federal employment: the total government over-the-year decline in October was 1%. Sizable losses have occurred, however, in both local and state government (Table 2). Local government employment has declined 7% while state government employment declined 4%.

The October unemployment rate for Fairbanks corresponds closely with the declines in employment. October's unemployment rate of 13.8% was almost a point above September's and a little more than two points above the year-ago level. The number of unemployed in October has grown to 4,410, or 740 above last year's level.

Table 2
State and Local Government Employment*

	10/86	10/85	Changes From: 10/85
State Government	1538	1620	-82
University of Alaska**	2440	2521	-81
City of Fairbanks	257	250	7
Fairbanks North Star Borough	366	431	-65
Fairbanks Municipal Utilities System	327	358	-31
Fairbanks North Slope Borough School District	1680	1775	95

*These figures do not include the City of North Pole, some fire stations, the Alaska Railroad and some commissions and boards.

**Tanana Valley Community College employment is included.

Gulf Coast

By Neal Fried

Current Trends

The Kenai Peninsula Borough's October unemployment rate brings nothing but grim news. The Peninsula's unemployment rate of 17.4% was the highest in the state and was six percentage points above year-ago levels. The number of unemployed increased by 1,106 over-the-year, bringing the total number of unemployed on the Peninsula to 2,991. Kodiak's unemployment rate was 10.1% while Valdez-Cordova's rate of 9.1% was the lowest for the region in October.

The beginning of winter put a chill on the entire Gulf Coast region's economy in October. The salmon season is over; tourist related activity has fallen to a trickle; and many construction projects are closing down for the winter. The seasonal slowdown in these activities caused declines in employment in almost all of the region's industries. Manufacturing (predominately fish processing) had the largest declines in employment in October. After a strong salmon season all salmon activity ended in October causing employment in this industry to tumble by 1,750.

The other three big seasonal losers in October were trade, construction and transportation. October's losses in wholesale and retail trade are a result of the end of the tourist season and the overall seasonal decline in the economy. Construction is a perennial seasonal loser because of the difficulty of building in the winter. Improved technology has made winter construction easier than in the past, but the additional expense and the elements still take their toll. Declines in transportation employment follow construction, fishing, and tourism industries because transportation provides so much support to these industries.

Over-The-Year Changes

A better measurement of an area's economic health is the over-the-year changes. The Gulf Coast region's employment statistics indicate its economy has been influenced by the statewide economic recession. Total wage and salary employment in the region fell 3%. Half of the regions eight major industries have fallen below year-ago levels. Construction was the biggest loser, followed by trade, transportation and government.

Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

				Changes From:	
	p/ 10/86	r/ 9/86	10/85	9/86	10/85
Nonag Wage & Salary	20200	22550	20900	-2350	-700
Mining	900	900	800	0	100
Construction	1800	1950	2600	-150	-800
Manufacturing	2650	4400	2300	-1750	350
Food & Kindred Prod	2000	3700	1600	-1700	400
All Other Mfg	650	700	700	-50	-50
Trans Comm & Utilities	1650	1800	1800	-150	-150
Trade	3650	3950	3850	-300	-200
Wholesale	450	600	500	-150	-50
Retail	3200	3350	3350	-150	-150
Finance-Ins & R E	650	650	650	0	0
Services & Misc	3350	3400	3250	-50	100
Government	5550	5500	5650	50	-100
Federal	550	550	550	0	0
State	1550	1600	1700	-50	-150
Local	3450	3350	3400	100	50

October construction employment has fallen by 31% since last year. The biggest declines are in residential and private commercial construction which has come to a standstill in some areas. The number of building permits issued on the Kenai Peninsula for the first half of this year fell by 63% from last year. All communities on the Peninsula experienced losses in residential construction.

According to Frykholm & Schaafsma Appraisal, apartment vacancies in Soldotna doubled from 12% in November 1985 to 24% one year later, and Kenai's vacancies tripled from 9% to 27%. Kodiak was the only community in the region which actually had gains in residential construction activity. Public construction held steady through October because work continued on the Bradley Lake Dam, Seward Prison, and school construction on the Kenai Peninsula.

Trade has fallen on hard times because of the slowdown in construction and the general economic decline. Wholesale trade employment has dropped because of a dramatic decline in the sale of building materials. Retail trade has also been affected by the decline in construction related purchases but the general economic decline has hurt retail trade more. Trade is often one of the first industries to feel the pinch during a recession. When income falls and economic uncertainty prevails people cut back immediately on discretionary purchases. Retail trade may also have over-expanded its capacity during the last boom and consequently may go through a period of readjustment.

Over-the-year declines in government in October remain small in the Gulf Coast. Although the decline was only 2%, all of the losses came from state government, which fell by 9% or 150 jobs. More significant is the fact that government employment is now falling. In the past when other sectors of the economy were contracting, the government sector often provided some buffer to these declines. This is not true during the present recession, which may be a sign of its severity.

One positive over-the-year comparison is fish processing employment—up by 400 jobs or 25% in October. Good salmon seasons and high prices have pumped additional income into many of the region's communities. Though the crab and shrimp fisheries are not yet on the mend, they apparently will not get any worse. Bottom fishing remains in its infancy stages but an increasing number of plants are processing bottom fish. Presently, approximately eight canneries in Kodiak are processing bottom fish. Not only does this improve the health of the overall industry but it also provides additional activity during the slack non-salmon months.

Southeast Alaska

By John Boucher

Federal Government Employment in Southeast Alaska

The federal government is one of Southeast Alaska's most important employers. Historically, it has been one of the regions largest employers. Perhaps more important than the size of the federal government work force in Southeast Alaska is the year around stability federal jobs provide nearly every local economy in the region.

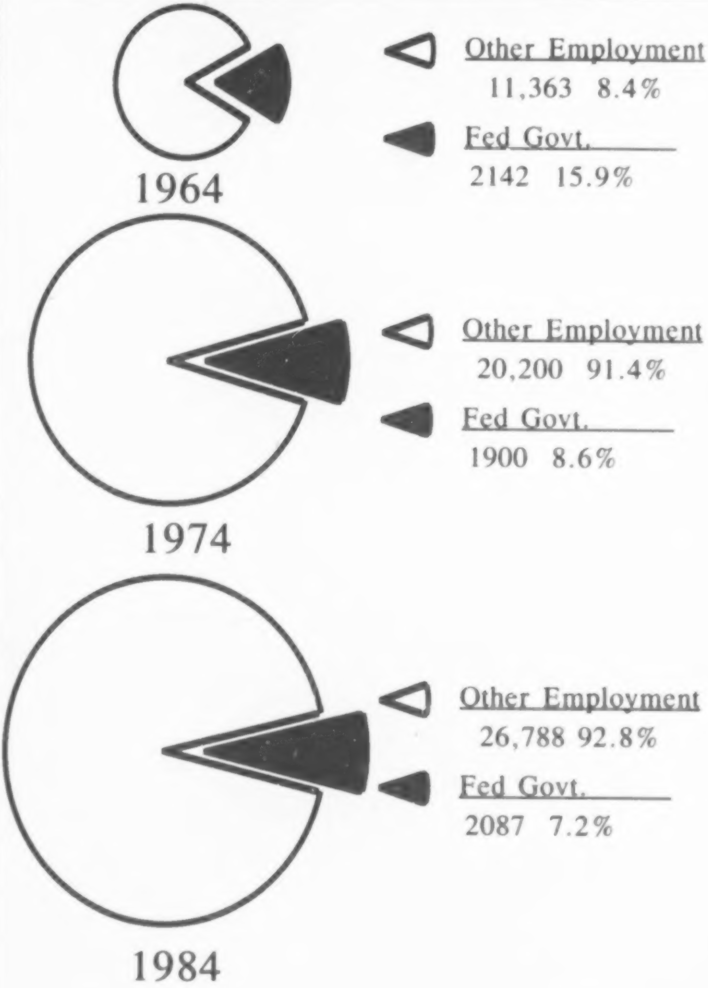
This article will briefly examine the federal government's prominence in Southeast Alaska since statehood. Following that will be an in-depth look at which federal agencies provide employment in the region as well as agency and area employment patterns from 1982 to 1985. This article will conclude with a brief outlook for federal government employment in the region.

A clear understanding of what constitutes federal government employment is important. Federal government employment in this context includes federal agencies such as the U.S. Forest Service and Bureau of Indian Affairs. In addition, civilian employees of the armed forces are included in these figures. No uniformed military are counted in these figures. Because military personnel are excluded, it can be safely said that the federal governments contribution to the economies of communities in the Southeast is understated by these figures.

Federal government's position within the Southeast Alaska economy has become less prominent since early statehood. In 1964, nearly 16 percent of all wage and salary jobs in the region were with the federal government. By 1974, federal government jobs in the region had decreased while other employment in the region had increased substantially. Federal governments share of total employment had dropped to 8.6 percent of total employment by this time.

Federal government employment increased from 1974 to 1984, but not as fast as other sectors of the economy. Federal government's share of total employment continued to slip during this period, falling to 7.2 percent of total employment. (see Graph)

Federal Government Employment
Southeast Alaska 1964 – 1974 – 1984



Federal Government Employment 1982-1985

Six federal agencies dominate federal government employment in Southeast Alaska. The U.S. Department of Agriculture is the largest federal agency in Southeast Alaska. Other large agencies in the region are the U.S. Postal Service, the U.S. Department of Health & Human Services, the U.S. Department of Transportation, the U.S. Department of Interior and the U.S. Department of Commerce.

Each agency has its own mission but federal employment in the region serves one of two purposes. Federal government in Southeast Alaska either provides essential services that would be otherwise unavailable or manages federal lands and resources within the region.

Two of the largest agencies are resource managers. The U.S. Department of Agriculture is a large employer because of the U.S. Forest Service personnel needed to manage the Tongass National Forest. The large contingent of Department of Commerce employees is due to the National Oceanic and Atmospheric Administration which manages the federal water resources in Alaska.

Four of the largest federal employers in the region provide essential services. The Department of Interiors largest agency in Southeast Alaska is the Bureau of Indian Affairs (BIA). The BIA provides infrastructure such as roads and housing to smaller communities in the region. The Department of Transportation has a large number of employees due to the Federal Aviation Administration and the Coast Guard 17th District headquarters. U.S. Department of Health and Human Services employees are predominantly located in Sitka at the Alaska Native Public Health Service Hospital. The large contingent of Postal Service employees could be expected given the geography of Southeast Alaska.

Federal government employment declined about six percent from 1982 to 1985. Declines in federal employment were not the result of across the board cuts to all federal agencies. Some agencies flourished from 1982 to 1985 while other agencies decreased their presence in the region. Table 1 summarizes employment by agency for 1982-1985.

The largest losses in federal employment during the last four years came within the Department of Interior and the Department of Agriculture. From 1982 to 1985 the Department of the Interior lost 125 employees while the Department of Agriculture lost 106 employees. Almost all of the jobs lost in the Department of the Interior could be attributed to the closure of Edgecumbe High School at the end of the 82-83 school year, which was run by the Bureau of Indian Affairs. The

Table 1
Federal Government Employment by Agency
Southeast Alaska 1982-1985

	1982	1983	1984	1985	Percent Change 82-85
U.S. Courts	9	8	7	7	-22.2%
U.S. Treasury	24	17	23	27	12.5%
Corps of Engineers	1	0	0	0	-100.0%
Department of Interior	299	266	152	174	-41.8%
Bureau of Mines	43	39	33	33	-23.3%
Dept of Energy	17	14	10	16	-5.9%
National Park Service	29	40	61	68	134.4%
Dept of Agriculture	943	904	875	837	-11.2%
Dept of Labor	11	13	13	13	18.2%
Dept of Commerce	194	201	197	190	-2.1%
Health & Human Services	199	199	206	206	3.5%
Dept of Transportation	198	199	196	186	-6.0%
U.S. Post Office	160	171	204	213	33.1%
Veterans Administration	70	75	83	88	25.7%
TOTAL 1/	2216	2163	2087	2085	-5.9%

1/ Total will not add due to rounding

Department of Agriculture jobs lost have been primarily within the U.S. Forest Service. Since 1980 consolidation of services to regional offices as well as the gradual elimination of positions has put Department of Agriculture employment on a steady downward trend.

Two agencies experienced strong growth from 1982 to 1985. The Postal Service added 63 jobs during this period while the National Park Service added 39 jobs. Increases in Postal Service employment are related to increasing population in the Southeast region, particularly in Juneau. As the capital city has grown and state government has grown, the burden on mail service in the capital city has steadily increased. The National Park Service employment also increased dramatically as increased population and a growing tourist trade has increased visitations to the national parks.

Federal Employment by Area

Every census area in Southeast Alaska has at least some federal employment. Since Juneau is a regional headquarters for many federal agencies, it has the lions share of federal employment. Following Juneau in the number of federal employees are Sitka and Ketchikan.

In Juneau federal government employment is spread among various agencies while in other census areas one or two agencies tend to dominate the federal government employment picture. In Ketchikan, Petersburg and Wrangell at least 60 percent of federal government employment is with the U.S. Forest Service. In Sitka the Forest Service and the Alaska Native Public Health Service Hospital combine for over 80 percent of the federal government employment. On the other hand the largest federal employer in Juneau has about 27 percent of the total federal work force.

Larger fluctuations in federal employment, both up and down, characterize census areas outside of Juneau. This is not surprising since these areas tend to be at the mercy of the fiscal fortunes of one agency. For example, the U.S. Forest Service has cut employment in Alaska steadily since 1980. Sitka, Petersburg, and Ketchikan have all had cuts in Forest Service employment, which meant large reductions in federal government employment in these communities. On the other hand, Juneau has had cuts in Forest Service employment but the cuts have not made as large an impact on the total federal employment picture. In addition, Juneau benefits from the consolidation of some local office functions to the regional office level.

The employment cuts in the Forest Service and the closure of Mt. Edgecumbe School by the Bureau of Indian Affairs had the largest impacts on area employment. Sitka lost 160 jobs from 1982 to 1985 as a result of these changes. Most federal agencies in Sitka gained employment during this period but the small gains made were swamped by the 140 employees lost at Mt. Edgecumbe and the 20 lost in the Forest Service. Fortunately for the Sitka economy, Mt. Edgecumbe has resumed operation and many of the jobs lost there were picked up by the state.

Ketchikan lost 60 federal jobs while Petersburg lost 40 during this period, and all the losses could be attributed to the Forest Service. In Ketchikan about half of the lost employment was due to gradual elimination of positions and the other half was due to the transfer of one ranger station from Ketchikan to Prince of Wales Island. In Petersburg the Forest Service losses were attributable to gradual elimination of positions.

Prince of Wales, Juneau, and Skagway gained additional federal employment during this period. Gains in Prince of Wales were attributable to the aforementioned transfer of a ranger station from Ketchikan. Skagway federal government employment gains were all in the National Park Service. Juneau gained federal employment from three different agencies: the Veterans Administration, the Postal Service and the Bureau of Indian Affairs.

Table 5
Federal Government Employment by Area
Southeast Alaska [illegible]

	[illegible]	[illegible]	[illegible]	[illegible]	Percent Change [illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Outlook for Federal Employment

[illegible]

[illegible]

[illegible]

[illegible]

reported that the U.S. Coast Guard is considering a reorganization plan which would relocate civilian employees outside the state. Should these plans be implemented, they would cut into the region's federal employment significantly.

The fastest growing agencies, the National Park Service and the Postal Service will not have the rapid growth they have had for the past several years. Gains in Postal Service employment have been in response to population growth and the growth in mail volumes associated with an increasing state government. Population growth in Southeast Alaska has subsided and oil prices are forcing the state government to contract. Therefore the Postal Service should not need to expand nearly as rapidly in the future. The National Park Service will probably continue to experience steady growth due to increasing tourism, but visitations to the parks will probably not increase at the pace they did from 1982 to 1985.

Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

				Changes From:	
	p/ 10/86	**r/ 9/86**	**10/85**	**9/86**	**10/85**
Nonag. Wage & Salary	28800	31150	29450	-2350	-650
Construction	1500	1600	1850	-100	-350
Manufacturing	3600	4800	2850	-1200	750
Food & Kindred Prod.	800	1900	700	-1100	100
Lumber & Paper Prod.	2550	2650	1900	-100	650
All Other Mfg.	250	250	250	0	0
Trans. Comm. & Utilities	1950	2250	2000	-300	-50
Trade	4400	4650	4550	-250	-150
Wholesale	400	400	400	0	0
Retail	4000	4250	4150	-250	-150
Finance-Ins. & R.E.	1100	1100	1150	0	-50
Mining, Services & Misc.	4500	4750	4600	-250	-100
Government	11750	12000	12450	-250	-700
Federal	2100	2200	2050	-100	50
State	5150	5300	5500	-150	-350
Local	4500	4500	4900	0	-400

Hours and Earnings

By John Boucher

Current Trends

Like other economic indicators tracking the health of Alaska's economy, the hours and earnings estimates show a broad based downturn in Alaska's economy. The hours and earnings estimates, for every industry tracked, indicate the average weekly paycheck in Alaska is shrinking. In most industries average weekly hours and average hourly wage are also down.

Preliminary and Revised Estimates

As indicated in the Alaska article, the reliability of a current estimate is based upon the strength of the sample of employer reported data. Nowhere is this more true than in estimates of hours and earnings. Hours and earnings estimates are based entirely on the sample and do not have the benefit of using seasonal patterns or other historical data. While analyst judgement can be used to adjust the estimates for an industry, analyst discretion cannot override the sample to the extent possible when estimating employment. Revisions in the hours and earnings data can sometimes be fairly dramatic if key members of the sample are missing from the preliminary estimate. Until last year, this problem was so severe that the estimates for hours and earnings lagged the estimate for employment by one month.

Despite the lack of sample for the current months estimate, the trend for revision between the preliminary and revised hours and earnings estimates is not following the same pattern as employment. Revised hours and earnings estimates are as likely to be higher than the preliminary estimate as they are lower. For example, in comparing the September 1986 preliminary estimates to the revised estimates five of the ten industries tracked were revised upward and the other five industries were revised downward.

The difference in estimating techniques between the hours and earnings and the employment estimates explain the different results. When the sample is inadequate in estimating employment, historical data is generally used to estimate the current months level of employment (see Alaska article). Unfortunately, using historical data tends to overestimate employment because of the success of the Alaskan economy in the past. Since the hours and earning estimates do not use historical data in the absence of sample, there is no tendency toward an upward bias during the preliminary estimates when sample is scarce. Therefore, the hours and earning sample based estimates are as likely to be revised up as they are down.

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JANUARY 1987
ALASKA ECONOMIC TRENDS

Alaska Department of Labor Steve Cowper, Governor, State of Alaska

Unemployment Compensation—Cushioning the Blow

Alaska Economic Trends

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Labor Force by Region and Census Area .... Center Insert

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1985.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Unemployment Compensation

By Mike Hurst

The Employment Security Act, passed in 1937, provides working men and women with protection against loss of income during periods of unemployment. It provides unemployment benefits (unemployment compensation) to employees who have lost their jobs. Its purpose is to assist workers in maintaining some purchasing power during times when they are unemployed and to help stabilize the economy.

This article examines unemployment benefits in Alaska that were paid during Federal Fiscal Year (FFY) 1986 (October 1, 1985 — September 30, 1986). It will identify benefits paid by program, by census area and region, by industry, by industries within regions, and payments made to persons in Alaska (intrastate) or outside of Alaska (interstate).

Since 1937 the system has undergone numerous changes and has grown tremendously in size. In 1937, $238,000 was paid in unemployment benefits. During the year between October 1, 1985 and September 30, 1986, Alaska paid $157.4 million to more than 67,000 unemployed persons, the highest amount in history.

Programs

Unemployment compensation is paid through a variety of programs (Table 1) which vary from state to state and from year to year. In FFY 1986, there were four programs paying benefits in Alaska—regular unemployment insurance (UI), extended benefits (EB), state supplemental benefits (SSB), and state interim benefits (SIB). In addition,there are special federal programs to pay benefits to ex-federal employees (UCFE) and ex-military employees (UCX).

Regular benefits and state supplemental benefits are funded by employer and employee contributions through taxes assessed or through direct reimbursements. Half of extended benefits are paid by employer and employee contributions, half by the U.S. Government. State interim benefits are paid out of Alaska's General Fund.

Regular unemployment insurance (UI) has been the main program in Alaska and nationwide since 1937. Regular UI accounted for 88% of all benefit dollars paid. In FFY 1986, 55,369 persons collected $137.8 million for 878,238 weeks of unemployment. The average recipient received $158.47 per week in regular benefits, for 15.9 weeks (table 1).

Extended benefits (EB) are available to recipients who exhaust their eligibility for regular benefits during periods when the rate of unemployment is higher than a specified rate. In FFY 1986, $16.1 million was paid to more than 16,000 persons. The amount paid per week was about the same as for regular benefits. The average duration was 6.3 weeks because claimants are only eligible for half as many weeks of benefits for EB as for regular benefits, and because interstate claimants are generally eligible for only two weeks of benefits.

State supplemental benefits (SSB) are virtually the same as extended benefits, but are available only to claimants declared ineligible for EB because of federal income requirements. In FFY 1986, 725 persons received $466,556 in state supplemental benefits. The average weekly benefit was $96.98.

State interim benefits (SIB) are paid to school employees (except administrators and certificated teachers) during periods between sessions. Over 1,700 persons received SIB during FFY 1986, for a total of more than two million dollars.

Total benefits of all programs increased by 18.3% between 1985 and 1986, as more unemployed received benefits for longer periods. However, if adjustments are made for the Federal Supplemental Compensation program, total benefits paid increased by a much greater amount. (The Federal Supplemental Compensation program was a federally funded program in effect between October, 1982 and April, 1985 which provided additional payments after regular benefits had been exhausted and extended benefits had been exhausted or an extended benefit period was not in effect.)

Included in the overall total are payments from the Federal Supplemental Compensation program, which expired March 31, 1985 and which paid almost seven million dollars in 1985 but almost nothing in 1986. If these payments are subtracted from the total, total benefits paid in all the other programs increased by 24.9%.

Between FFY 1985 and 1986, regular benefits paid increased 21.9% while state interim benefits paid increased 21.8%. Extended benefits and state supplemental benefits paid increased by 56.3% and 59.9% respectively, mostly because of longer periods of high unemployment rates. In addition to these four programs, five million dollars was paid to ex-federal and ex-military employees in FFY 1986, an increase of 9.6% over 1985.

In FFY 1986, the Alaska portion of benefits paid to former employees of taxable businesses totalled $142 million, however, taxable contributions were only $83.9 million. The difference came out of the Unemployment Insurance Trust Fund balance, the account which handles benefits and disbursements. If this trend continues, the fund could be in trouble. There will be a special article on the Trust Fund in a future issue of *Alaska Economic Trends*.

Payments by Area

Distribution of benefits by area did not change significantly in FFY 1986 (Table 2). Interstate claimants and claimants from the Southeast Region received slightly smaller shares of total benefits than they received in 1985, while those from the Gulf Coast and Interior regions received slightly greater shares.

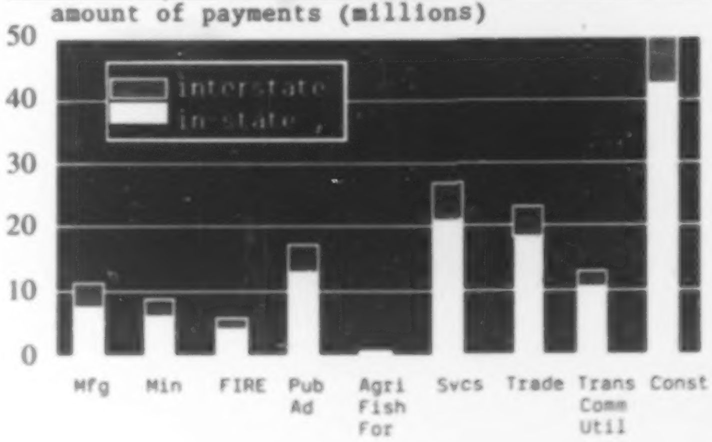
Unemployment compensation paid to claimants in Alaska (intrastate) was $125 million in FFY 1986, an increase of 21.8% from 1985, and 79.4% of total benefits. Every region of the state paid more benefits to more claimants in 1986, although the growth rates varied from region to region (Table 2). The Gulf Coast Region, with the greatest growth rate, received $17.1 million in benefits in 1986, an increase of 40.2% over 1985. Kenai Peninsula Borough's increase of 55.9% overshadowed the modest increases in Valdez-Cordova and in Kodiak. The Southwest Region, with the lowest growth rate, received $3.4 million in 1986, a modest 5.3% increase over 1985. The largest area, Bethel, received 3.5% less in benefits, offsetting increases in the other areas.

The Southeast Region also had large differences between areas. The $15.5 million received in total benefits was 12.2% higher than in 1985. Juneau, however, recieved 29.2% more in total benefits (mostly due to increases in the construction and services industries) while improvements in the paper products and lumber and wood products industries helped reduce payments in Ketchikan by 2% and produced declines in benefits in other rural areas as well.

The Anchorage-Matsu Region received the most in unemployment benefits in 1986—$58.3 million, an increase of 23%, of which $45.1 million was paid in the Anchorage Borough alone. Anchorage-Matsu accounted for 46.7% of benefits paid in Alaska and 37.1% of total benefits. These percentages are practically unchanged from 1985, indicating that the shift of payments to this region that occurred in FFY 1985 may have ended.

The North Slope Borough had the highest weekly benefit amount, $183.97 for regular benefits, while Kodiak Island Borough had the lowest, $123.34. The longest average duration of regular benefits, 17.6 weeks, was also in the North Slope Borough (but matched by interstate claimants) while the shortest average duration, 11.7 weeks, was in the Aleutian Islands.

Unemployment Compensation, by Industry Intra–Interstate, FFY 1986



Payments by Industry

In the past fiscal year, unemployment benefits increased in every major industry group except manufacturing and transportation, communication, and utilities (tables 3 and 4). This is not surprising given the current economic conditions in Alaska. It is interesting, however, to see the significant increases in benefits attributed to normally stable industries such as trade, services, and finance, and the tremendous growth in payments to former employees in oil and gas mining.

Total benefits paid to claimants from the manufacturing industry declined by 3.2% in FFY 1986 from FFY 1985, while those in transportation, communications, and utilities declined by 6.7%. The decline in benefits paid to manufacturing was led by declines of 10.9% in the food products industry and 26.7% in paper products.

For all other industries, total benefits were higher in 1986 than in 1985. The greatest growth in benefits was in the oil and gas industry, where benefits paid were more than twice as much in 1986 overall—95.5% more to claimants in Alaska, 177.1% more to claimants outside of Alaska.

Other industries which showed significant growth in benefits paid were trade (34.9% more), services (28.2% more), finance, insurance, and real estate (24.6% more), and public administration (10.2% more). Claimants in the construction industry also received 12.2% more in benefits in 1986, of which claimants in Alaska received 14.9% more, while those outside of Alaska received 1.1% less.

The construction industry accounted for 31.6% of all unemployment benefits, $49.5 million, the most for any industry. Following construction was services ($26.8 million, 17.2% of total benefits), trade ($22.9 million, 14.7%), and public administration ($17.1 million, 10.9%). The construction industry also accounted for the greatest amount of benefits in every region except the Southwest region, where services and public administration were higher, and in the Northern region, where former employees in public administration received the most.

On the other hand, claimants in the Anchorage-MatSu region received the most benefits in FFY 1986 in every industry except manufacturing. The greatest proportion of benefits to former employees in the manufacturing industry went out of state, and to the Southeast Region. Interstate claimants and claimants in the Gulf Coast Region received the most benefits going to food products workers.

Interstate Payments

Interstate payments are payments to persons who reside outside of Alaska, but who previously worked in Alaska and are now receiving payments from Alaska (Table 4). Interstate payments were $32.3 million in Federal Fiscal Year (FFY) 1986, an increase of 13.4% from 1985. Interstate payments accounted for 20.5% of total benefits paid (see Table 2). About half of all interstate dollars are sent to Washington, Oregon, or California.

The frequently asked question is, Which industries account for the most interstate payments? or, What is their relative share of interstate payments? The construction industry had the largest share of interstate payments in FFY 1986, 22.6%, followed by services (17.6%), trade (14.7%), public administration (12.4%), and manufacturing (10.9%).

Some industries had a larger share of interstate payments in FFY 1986 than they had in 1985. The most significant were services increasing from 16.5% to 17.6%, trade from 11.8% to 14.7%, and oil and gas from 2.7% to 6.6%.

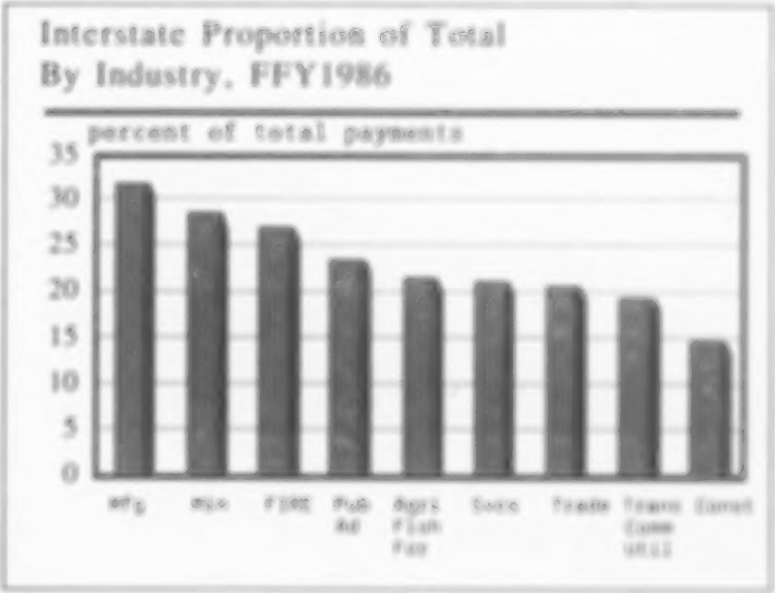
Industries that had a smaller share of interstate payments in FFY 1986 than they had in 1985 were construction decreasing from 26.0% to 22.6%, transportation, communications, and utilities from 9.3% to 7.8%, and food products from 10.1% to 6.8%.

Relative shares can be misleading when examining the characteristics of a particular industry. One important statistic is the proportion of total benefits attributed to an industry that are paid to out-of-state claimants (interstate percent of total benefits). For instance, the construction industry accounted for the greatest percentage of total interstate benefits, 22.6%; however, only 14.8% of total benefits attributed to the construction industry were interstate benefits, the smallest proportion of any industry. This proportion declined from 16.8% in 1985.

On the other end, of total benefits to former workers in the food products industry (primarily seafood processing), 42.5% were paid to out-of-state claimants in FFY 1986, the largest proportion of any industry. This proportion also declined, from 49.3% in 1985.

The interstate percent of total benefits increased in FFY 1986 in several industries, most notably trade from 19.1% to 20.7%, paper products from 12.3% to 18.4%, and oil and gas mining from 22.0% to 28.5%.

The average interstate claimant received $162.36 per week in regular benefits in FFY 1986, about $10.00 more per week than the average claimant in Alaska. This average is an increase of 7.2% over 1985, and reflects primarily the increased interstate shares of the services and mining industries, and the predominant share of the construc-



Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 10/86	R/ 9/86	10/85	P/ 10/86	R/ 9/86	10/85	P/ 10/86	R/ 9/86	10/85
Mining	1105.92	1154.19	1203.68	48.0	50.6	50.3	23.04	22.81	23.93
Construction	1055.63	1115.45	1119.87	42.6	44.6	46.7	24.78	25.01	23.98
Manufacturing	509.67	421.20	568.72	40.1	35.1	38.9	12.71	12.00	14.62
Food & Kindred Prod	249.84	244.75	305.84	33.9	28.1	29.1	7.37	8.71	10.51
Lumber & Paper Prod	743.71	711.33	744.72	48.8	50.2	47.8	15.24	14.17	15.58
Trans . Comm & Utilities	561.14	546.84	607.45	36.7	36.0	37.8	15.29	15.19	16.07
Trade	359.90	371.30	389.94	32.6	32.8	33.3	11.04	11.32	11.71
Wholesale	480.13	479.54	544.28	36.1	34.4	36.9	13.30	13.94	14.75
Retail	320.36	333.98	335.36	31.5	32.3	32.0	10.17	10.34	10.48
Finance-Ins & R.E	402.87	381.62	413.47	34.7	33.3	35.4	11.61	11.46	11.68

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES. Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

P/ Denotes preliminary estimates
R/ Denotes revised Estimates

Note: The tables do not give comparable results because the source of the data and methodology of calculating benefits differ. Questions should be directed to the Alaska Department of Labor, Research and Analysis' UI unit.

Table 1
Unemployment Compensation by Program, Federal Fiscal Year [illegible]

	Amount of Payments	Change [illegible]	Weeks Paid	Change [illegible]	First Payments	Change [illegible]	Final Payments	Change [illegible]	Final % of First	Average Weekly Benefit	Average Duration [illegible]
Regular UI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Extended Benefits	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
State Supplemental Benefits	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
State Extended Benefits	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total of All Programs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SOURCE: ETA 5-159 Claims and Payment Activities Report

1/ Includes Federal Supplemental Compensation, [illegible]

Note: Benefit Payments do not include [illegible]

Table 2:
Unemployment Compensation by Area

	Amount of Payments /1			Number of Recipients /1			Average Duration /2		Average Weekly Benefit Amount /2	
	FFY 1985 No.	FFY 1986 No.	Change 85-86 (Pct.)	FFY 1985 No.	FFY 1986 No.	Change 85-86 (Pct.)	FFY 1986 (weeks)	Change 85-86 (Pct.)	FFY 1986	Change 85-86 (Pct.)
Anch.-MatSu Region	$47,429,509	$58,328,765	23.0%	20,810	23,884	14.8%	15.1	-0.1%	$160.84	2.1%
Anchorage Borough	36,265,977	45,136,911	24.5%	16,314	18,835	15.5%	15.0	-0.2%	160.92	2.0%
MatSu Borough	11,163,532	13,191,854	18.2%	4,496	5,049	12.3%	15.7	0.4%	160.58	2.1%
Gulf Coast Region	12,238,897	17,159,661	40.2%	5,803	7,284	25.5%	15.4	1.1%	146.29	4.8%
Kenai Peninsula Bor	8,487,256	13,235,618	55.9%	3,961	5,412	36.6%	15.6	3.7%	151.09	5.2%
Kodiak Island Bor	1,943,261	1,977,686	1.8%	1,081	1,044	-3.4%	15.1	2.1%	123.34	1.7%
Valdez-Cordova	1,808,380	1,946,357	7.6%	761	828	8.8%	14.9	-8.9%	143.64	-1.2%
Interior Region	20,011,025	25,184,439	25.9%	8,518	9,989	17.3%	15.3	3.4%	157.64	1.1%
Fairbanks North Star Borough	16,554,582	21,493,236	29.8%	7,051	8,434	19.6%	15.2	4.1%	161.24	0.5%
Southeast Fairbanks	1,275,763	1,583,147	24.1%	526	589	12.0%	16.3	-0.6%	143.69	2.4%
Yukon-Koyukuk	2,180,680	2,108,056	-3.3%	941	966	2.7%	15.6	1.4%	135.29	0.9%
Northern Region	3,378,791	3,916,973	15.9%	1,482	1,666	12.4%	15.7	8.9%	151.28	0.7%
Kobuk	1,026,793	1,199,155	16.8%	472	537	13.8%	15.2	4.2%	142.47	0.7%
Nome	1,408,876	1,748,300	24.1%	616	719	16.7%	15.4	2.1%	142.45	3.3%
North Slope Borough	943,122	969,518	2.8%	394	410	4.1%	17.6	40.4%	183.97	1.7%
Southeast Region	13,831,266	15,501,872	12.1%	7,092	7,467	5.3%	14.5	0.5%	145.57	2.9%
Haines Borough	514,998	556,282	8.0%	225	242	7.6%	15.6	5.8%	144.42	2.3%
Juneau Borough	4,290,067	5,542,079	29.2%	2,201	2,524	14.7%	15.1	6.9%	150.92	3.9%
Ketchikan Gateway Borough	3,175,400	3,113,259	-2.0%	1,641	1,519	7.4%	14.5	-9.8%	142.56	0.8%
Prince of Wales-Outer Ketchikan	1,495,525	1,666,122	11.4%	721	811	12.5%	14.8	4.0%	139.73	5.1%
Sitka Borough	1,472,898	1,716,200	16.5%	878	950	8.2%	12.9	14.0%	150.89	-0.2%
Skagway-Yakutat-Angoon	1,127,572	1,112,703	-1.3%	548	556	1.5%	14.2	-12.7%	130.24	5.6%
Wrangell-Petersburg	1,754,806	1,795,227	2.3%	878	865	1.5%	14.4	-6.9%	145.50	3.7%
Southwest Region	3,183,066	3,352,366	5.3%	1,579	1,724	9.2%	14.5	-5.8%	126.90	-0.2%
Aleutian Islands	209,873	275,610	31.3%	125	174	39.2%	11.7	-9.9%	130.76	1.6%
Bethel	1,605,402	1,548,516	-3.5%	789	820	3.9%	15.0	-3.2%	124.18	1.8%
Bristol Bay Borough	130,876	160,591	22.7%	67	65	-3.0%	17.5	16.5%	133.84	0.4%
Dillingham	539,566	638,977	18.4%	246	302	22.8%	14.1	-13.1%	135.86	0.6%
Wade Hampton	697,349	728,682	4.5%	352	363	3.1%	14.6	7.1%	123.38	2.3%
Area Unknown	2,601,875	1,582,272	-39.2%	1,224	707	-42.2%	14.0	23.9%	158.29	1.6%
In-State Total	102,674,429	125,026,348	21.8%	46,508	52,721	13.4%	15.1	1.8%	152.82	2.4%
Interstate Total	30,285,488	32,347,072	6.8%	14,215	14,422	1.5%	17.6	1.2%	162.36	7.2%
Grand Total	$132,959,917	$157,373,420	18.4%	60,723	67,143	10.6%	15.6	1.3%	$156.29	3.3%

SOURCE: Alaska Department of Labor, 1985-1986, RESP 8003, Claimant Characteristics Tape
Alaska Department of Labor, 1985-1986, UC-217 report, Benefit Payments by Industry and Area

1/ Benefit payments include payments from the Regular UI, Extended Benefits, Federal Supplemental Compensation, and State Supplemental Benefits programs, and include payments to ex-federal and ex-military employees (UCFE, UCX). State Interim Benefits are excluded.

2/ Average duration and weekly benefit amounts are for the Regular UI program only.

tion industry—industries with high weekly benefit amounts—combined with the declining relative share of the lower paid manufacturing industries.

The average interstate claimant also received payments for 17.6 weeks in FFY 1986, about 2.5 weeks longer than the average claimant in Alaska. This has been the normal case since 1972, when the limits on potential duration for interstate claimants were removed.

Summary

Unemployment insurance benefits were significantly higher in almost every industry and area during the fiscal year between October 1, 1985 and September 30, 1986. Upon closer examination, we can see two interesting trends.

First, there were some unusually large increases in benefits paid to former employees of normally stable industries. The huge increase in benefits in the oil and gas industry was expected with the plunge in the price of oil last year; however, there appears to be a spin-off to other industries. Some of these, such as equipment rental and leasing services, are closely tied to the oil industry, while others such as finance, insurance, and real estate point to an overall decline in demand in the Alaska economy.

Second, the nature of interstate benefit payments (benefits paid to out-of-work persons now claiming benefits from another state) appears to be changing. While the total amount of benefits increased in FFY 1986, the increase for interstate benefits was smaller than for intrastate (in-state) benefits. While the interstate benefits increased, the proportion of total benefits that went out of state was smaller than in 1985. This has been the trend for the past few years.

Also, the distribution of interstate payments has shifted. Industries that traditionally have more seasonal migratory workers, such as construction and manufacturing, had declines in total interstate benefits, in their share of total interstate benefits, and in the interstate proportion of total benefits within those industries. Industries that have traditionally been more stable (less unemployed) showed increases in all three catagories.

These results suggest an increase in outmigration from Alaska, but it is also likely that Alaska is less attractive to those coming up during the construction and fishing seasons to seek their fortunes. If the trend continues, we may see some flattening out within a year or two.

Table 4
Unemployment Compensation by Industry and Area
Federal Fiscal Year 1986

	Northern		Interior		Southwest
	Amount Paid	% Change 85-86	Amount Paid	% Change 85-86	Amount Paid
Agricultural, Forestry and Fisheries	$9,465	-42.0	$41,811	12.9	$6,622
Mining	191,137	12.6	732,786	76.6	48,038
Oil and Gas	73,514	43.8	421,071	100.2	30,439
Other Mining	117,623	29.8	311,715	52.4	17,599
Construction	824,832	-6.5	10,984,428	9.3	493,055
Manufacturing	20,094	10.1	573,565	27.5	271,273
Food Products	14,873	192.0	72,677	37.3	240,066
Lumber and Wood	4,316	-32.3	73,481	6.5	2,184
Paper Products	0	0.0	9,675	25.0	0
Other Mfg	90	-66.7	417,732	65.7	29,023
Trans. Comm. & Utilities	182,544	-29.8	1,770,467	11.0	311,810
Trade	260,987	27.1	3,652,509	58.3	285,746
Finance-Ins. & R.E.	238,059	156.2	499,137	33.5	150,029
Services	830,636	27.1	4,537,245	44.8	911,642
Public Admin	1,354,277	36.4	2,585,255	2.5	857,572
Unclassified	16,840	-33.5	173,499	22.3	36,091
Total	$3,928,871	16.7	$25,550,702	19.3	$3,371,878

	In-State Total			Out-of-State Total
	Amount Paid	% Change 85-86	% of Total	Amount Paid
Agriculture, Forestry, and Fisheries	$551,781	28.8	0.4	$152,105
Mining	6,160,467	76.5	4.9	2,464,417
Oil and Gas	5,317,041	95.5	4.3	2,122,905
Other Mining	843,426	9.4	0.7	341,512
Construction	42,192,018	14.9	33.9	7,314,519
Manufacturing	7,576,850	2.2	6.1	3,550,554
Food Products	2,988,695	1.0	2.4	2,207,929
Lumber and Wood	1,882,664	-4.9	1.5	797,786
Paper Products	750,298	-31.7	0.6	168,763
Other Mfg	1,955,193	42.1	1.6	376,076
Trans. Comm. & Utilities	10,370,485	-7.1	8.3	2,509,698
Trade	18,236,721	33.4	14.6	4,752,518
Finance-Ins. & R.E.	4,161,343	24.7	3.3	1,553,455
Services	21,181,309	30.1	17.0	5,715,522
Public Admin	13,084,463	9.5	10.5	4,034,849
Unclassified	978,995	10.8	0.8	275,147
Total	$124,494,432	16.2	100.0	$32,322,784

SOURCE: Alaska Department of Labor, 1984-1985, RESP 8003, Claimant Characteristics

	Anchorage/MatSu		Gulf Coast		Southeast	
% Change 85-86	Amount Paid	% Change 85-86	Amount Paid	% Change 85-86	Amount Paid	% Change 85-86
433.6	$244,904	67.0	$59,908	-33.7	$189,071	38.4
68.4	3,223,455	68.0	1,855,468	132.1	109,583	-1.4
40.9	2,940,557	79.6	1,793,932	139.7	57,528	11.5
154.3	282,898	0.6	61,536	20.3	52,055	-12.6
-3.8	20,223,652	13.7	5,906,396	33.9	3,759,655	22.0
-12.3	1,939,002	10.6	1,834,324	16.9	2,938,592	-11.3
-17.7	335,333	-29.3	1,549,837	15.1	775,909	7.0
-70.2	347,950	-2.4	102,802	52.9	1,351,931	8.3
0	30,940	-23.3	14,736	45.2	694,947	-31.8
186.9	1,224,779	38.3	166,949	29.1	115,805	21.4
-15.7	5,093,638	-14.3	1,181,529	17.8	1,830,497	14.6
33.6	9,915,014	27.1	2,279,915	45.5	1,842,550	16.5
-5.0	2,385,699	18.2	356,143	12.3	532,276	41.3
11.4	10,432,677	26.9	2,317,422	33.9	2,151,687	25.2
9.0	4,795,581	8.8	1,089,501	21.5	2,402,277	2.5
30.7	475,150	1.9	174,753	66.7	102,662	-12.9
4.5	$58,728,772	16.4	$17,055,359	36.6	$15,858,850	10.3

		Grand Total				
% Change 85-86	% of Total	Amount Paid	% Change 85-86	% of Total	% In-State	% Out-of-State
36.7	0.5	$703,886	30.4	0.4	78.4	21.6
123.7	7.6	8,624,884	87.8	5.5	71.4	28.6
177.1	6.6	7,439,946	113.4	4.7	71.5	28.5
1.8	1.1	1,184,938	7.1	0.8	71.2	28.8
-1.1	22.6	49,506,537	12.2	31.6	85.2	14.8
-13.0	11.0	11,127,404	-3.2	7.1	68.1	31.9
-23.1	6.8	5,196,624	-10.9	3.3	57.5	42.5
1.7	2.5	2,680,450	-3.0	1.7	70.2	29.8
9.5	0.5	919,061	-26.7	0.6	81.6	18.4
38.3	1.2	2,331,269	41.4	1.5	83.9	16.1
-4.9	7.8	12,880,183	-6.7	8.2	80.5	19.5
41.3	14.7	22,989,239	34.9	14.7	79.3	20.7
24.5	4.8	5,714,798	24.6	3.6	72.8	27.2
21.5	17.7	26,896,831	28.2	17.2	78.8	21.2
12.4	12.5	17,119,312	10.2	10.9	76.4	23.6
8.9	0.9	1,254,142	10.4	0.8	78.1	21.9
13.5	100.0	$156,817,216	15.7	100.0	79.4	20.6

Tape

Alaska

By Edward Eboch

Income Maintenance Programs

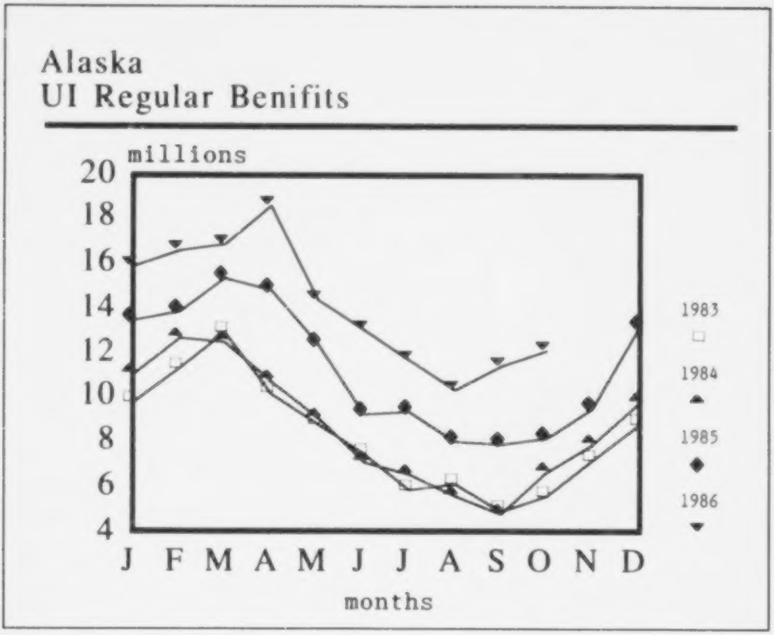
Low oil prices continue to impact Alaska's spending and employment as well as the future of the state. Statewide unemployment rates (11.0% in November) are the highest since the end of the pipeline boom. Employment is currently 4-5% below last year, and while the price of oil seems to be firming at this writing, the increases will not be enough to prevent additional employment losses across the state. During this time the income enhancement programs will help soften the blow of lost employment.

Income protection and income enhancement programs help cushion the economy during seasonal swings and economic downturns. One important program in Alaska is the unemployment insurance (UI) program. How important are unemployment insurance benefits, as well as other income maintenance programs, in helping to stabilize a community's economy or the states economy?

The article about unemployment compensation in this publication discusses in detail unemployment benefit payments by industry, census area and region. This article will try to highlight the importance of the unemployment insurance program, as well as some other income maintenance programs, to Alaska. For example, the importance of unemployment benefits in 1984, as a percent of 1984 total personal income, for each census area is indicated in Table 1. Also shown is the impact of other income maintenance programs such as food stamps, aid to families with dependent children, and other programs.

In 1984, a relatively good year with growing employment, UI payments represented 1.1% of total personal income in Alaska, but up to over 2.5% in some census areas. From 1984 to 1986 the amounts paid increased as employment increased. The amounts paid are a result of seasonal employment (construction, mining, and fishing), structural changes in the economy, and changes in the UI programs.

The current amounts paid and the number of recipients of UI benefits are an indication of economic hard times. While we do not have current personal income data, regular UI benefits for the first six months have increased from 2.06% in 1984 to 2.48% in 1985 to 3.13% in 1986 as a percent of nonagricultural wages and salaries. The seasonal importance of the UI program can be seen in Graph 1. The peak months for benefit payments (late winter) are as much as twice the low months



(late summer). These payments offset the periods of greatest unemployment.

Other income maintenance programs also contribute to the economy in difficult times, nearly 1% to the state's total personal income and an even greater share in some census areas. These other income maintenance programs contributed over 5% of personal income to the Aleutian Islands, Yukon-Koyukuk, and Kobuk and nearly 10% to the Wade Hampton census area.

According to Alaska's Department of Health and Social Services, Division of Public Assistance, the aid to families with dependent children and food stamp programs are up over 30% in number of participants and payments since the 1984 fiscal year and are projected to increase by over 10% this next fiscal year.

With difficult economic times ahead these income maintenance programs will make an important contribution to the income of individuals and to the support of local economies in Alaska.

Alaska Income Maintenance Benefit Payments
1984

	Personal Income (thous)	UI Benefits (thous)	Other Programs (thous)	Percent of Personal Income		1985 UI Benefits/1 (thous)
				UI	Other Programs	
Alaska Statewide	$8770900	$96404	$79765	1.10	0.91	$105341
Anch.-MatSu Region	4769500	39408	30577	0.83	0.64	50460
Anchorage Borough	4349100	31290	28018	0.72	0.64	39057
MatSu Borough	420400	8118	2559	1.93	0.61	11403
Gulf Coast Region	823600	14404	6699	1.75	0.81	12487
Kenai Peninsula Bor	499500	10115	4387	2.03	0.88	8612
Kodiak Island Bor	174000	1933	1339	1.11	0.77	2034
Valdez-Cordova	150100	2356	973	1.57	0.65	1841
Interior Region	1454300	20234	14354	1.39	0.99	21439
Fairbanks North Star Borough	1293100	16427	8551	1.27	0.66	17246
Southeast Fairbanks	79800	1395	1296	1.75	1.62	1940
Yukon-Koyukuk	81400	2412	4507	2.96	5.54	2235
Northern Region	268900	3304	7660	1.23	2.85	3366
Kobuk	59600	1260	3069	2.11	5.15	1018
Nome	96000	1399	3659	1.46	3.81	1422
North Slope Borough	113300	645	932	0.57	0.82	926
Southeast Region	1109400	15436	7149	1.39	0.64	14378
Haines Borough	32300	772	242	2.39	0.75	554
Juneau Borough	505300	4012	2195	0.79	0.43	4432
Ketchikan Gateway Borough	232100	3022	2049	1.30	0.88	3352
Prince of Wales-Outer Ketchikan	63100	2123	619	3.36	0.98	1484
Sitka Borough	119700	1756	559	1.47	0.47	1548
Skagway-Yakutat-Angoon	56400	1414	652	2.51	1.16	1172
Wrangell-Petersburg	100500	2337	833	2.33	0.83	1836
Southwest Region	345000	3620	13326	1.05	3.86	3226
Aleutian Islands	119300	445	460	0.37	0.39	212
Bethel	113800	1684	7806	1.48	6.86	1614
Bristol Bay Borough	23200	207	207	0.89	0.89	135
Dillingham	54600	475	1477	0.87	2.71	554
Wade Hampton	34100	809	3376	2.37	9.90	711

Source: Personal Income for Counties and Metropolitan Areas, U.S. Department of Commerce, Regional Economic Information System, Bureau of Economic Analysis, April 1986

1/ See lead article this publication

Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 11/86	R/ 10/86	11/85	P/ 11/86	R/ 10/86	11/85	P/ 11/86	R/ 10/86	11/85	P/ 11/86	R/ 10/86	11/85

Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

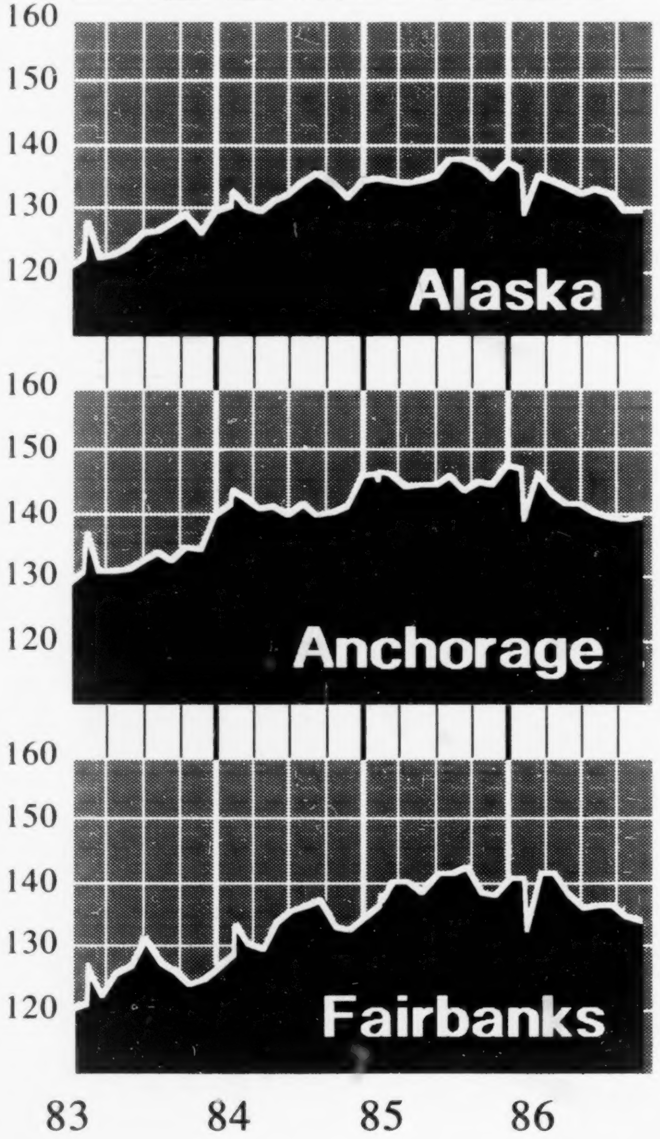
	p/ 11/86	r/ 10/86	11/85	Changes From: 10/86	 11/85
Nonag. Wage & Salary	217700	224200	228900	-6500	-11200
Mining	7800	7800	9300	0	1500
Construction	13700	16800	16900	-3100	3200
Manufacturing	9300	10500	9100	1200	200
Food & Kindred Prod	3400	4100	3500	700	100
Lumber & Paper Prod	2700	3100	2100	-400	600
All Other Mfg	3200	3300	3500	100	300
Trans. Comm. & Utilities	18400	18700	18600	300	200
Trucking & Whseing	2100	2100	2200	0	100
Water Transportation	1200	1300	1200	100	0
Air Transportation	6000	6000	6000	0	0
Other Trans. Comm. & Utilities	9100	9300	9200	200	100
Trade	43700	44700	47200	1000	3500
Wholesale	7700	7700	8500	0	800
Retail	36000	37000	38700	1000	2700
Gen. Mer. & Apparel	5700	5600	5900	100	200
Food Stores	6100	6400	6300	300	200
Eating & Drinking Pl	12800	13300	13800	500	1000
Other Retail Trade	11400	11700	12700	300	1300
Finance-Ins. & R.E.	12700	12800	12900	100	200
Services & Misc	43100	43900	45100	800	2000
Government	69000	69000	69800	0	800
Federal	18700	18100	17800	600	900
State	19600	20000	20700	400	1100
Local	30700	30900	31300	200	600

Prepared in cooperation with the U.S. Bureau of Labor Statistics
Government includes teachers in primary and secondary schools and Personnel employed by the University of Alaska

Benchmark Date March 1985

p/ Denotes Preliminary Estimates
r/ Denotes Revised Estimates

COMPOSITE NONAG. EMPLOYMENT INDEXES

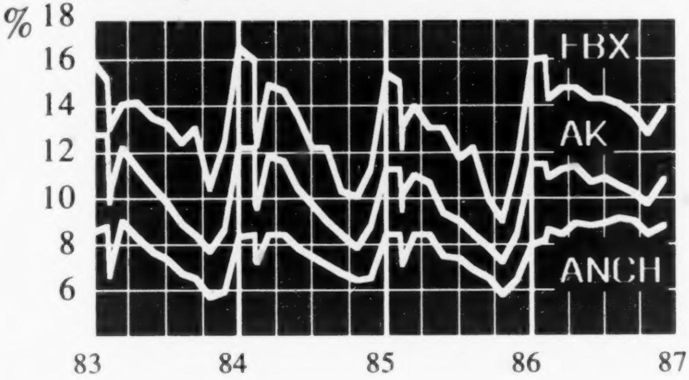


SEASONALLY ADJUSTED 1983 TO PRESENT

source: ak. dept. of labor

UNEMPLOYMENT RATE

not seasonally adjusted
1983 to present



Anchorage/MatSu

By Greg Huff

Employment Losses Gain Momentum

Anchorage nonagricultural wage and salary employment statistics for November show employment losses of over 6,000, a 5.2% drop from November 1985. This is the largest month-to-month decline of the year and marks another month in which the year-to-year declines have gained momentum. At year-end the annualized employment figures for 1986 may show a decline of nearly 4% from the peak levels of 1985. Four industries have been the primary contributors to the tailspin in Anchorage employment.

Graph 1 shows the percent change in employment for these industries. Construction was the first industry to experience declining employment. As early as 1984 construction activity started to slow and employment levels began declining—slowly at first then with increasing magnitude.

Anchorage Employment Trends for Selected Primary Industries

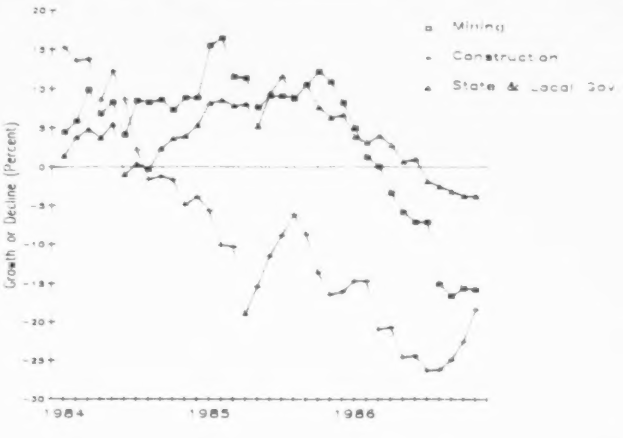


Table 3
Unemployment Compensation by Industry, FFY 86
Regular UI Benefits, Excluding Federal

	Intrastate			Interstate		
	Amount of Payments	**Average Weekly Payment**	**Average Duration (weeks)**	**Amount of Payments**	**Average Weekly Payment**	**Average Duration (weeks)**
Agricultural, Forestry, and Fisheries	494,195	$135.92	13.6	157,071	$150.74	14.1
Mining	5,409,475	180.09	14.7	2,222,679	190.04	16.4
Oil and Gas	4,668,443	182.70	14.8	1,887,565	192.04	16.1
Other Mining	741,032	165.19	14.2	335,114	179.49	18.3
Construction	35,245,359	177.02	15.7	7,361,997	181.65	18.0
Manufacturing	6,768,607	134.63	14.4	3,713,753	135.61	15.4
Food Products	2,547,833	102.62	15.2	2,257,214	120.82	15.0
Lumber and Wood	1,753,415	163.98	13.6	887,935	171.61	14.5
Paper Products	740,271	182.38	11.1	195,198	181.24	16.6
Other Mfg	1,727,088	161.49	15.1	373,406	152.29	21.0
Trans., Comm and Utilities	9,145,945	159.36	14.9	2,349,865	171.76	17.3
Trade	16,384,424	136.29	15.0	4,249,625	145.12	18.4
Finance, Insurance, and Real Estate	3,778,263	154.25	15.3	1,474,812	164.67	18.3
Services	18,992,734	141.84	14.7	5,333,804	158.35	18.6
Public Admin	8,887,539	149.13	15.3	2,490,966	173.50	18.3
Unclassified	637,278	127.43	16.2	186,277	139.64	20.5
Total	$105,743,819	$154.67	15.1	$29,540,849	$162.36	17.6

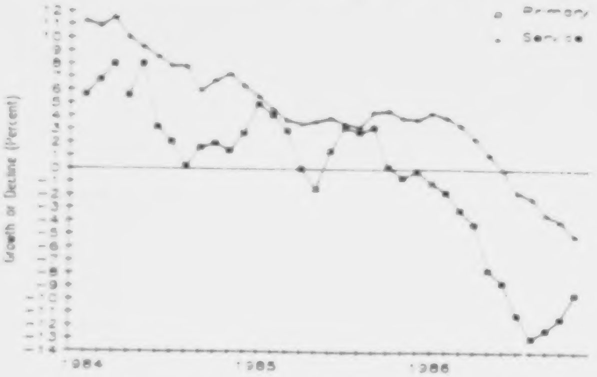
SOURCE: Alaska Department of Labor, UC-217 report, Benefit Payments by Industry and Area, Federal Fiscal Year 1986

Employment in the mining industry (primarily the oil and gas industry) began declining in early 1986 when major oil producers responded to rapidly falling oil prices by cutting back drilling and exploration activities. Employment among contractors providing or supporting those activities went into a tailspin, finally leveling out at around 85% of what it was in 1985.

As a result service-oriented industries providing goods or services to these industries, and government, began to experience employment losses by mid-1986 (Graph 2). Trade; finance, insurance and real estate, and services combined for employment declines of over 5% in November compared to the previous year.

Rapidly falling oil prices also sent state and local government employment into a decline by mid-1986. Since May, state and local government employment declines have been increasing. This employment reduction may be only the first in a series of adjustments to declining revenues. State government employment losses as a result of the shrinking state budget will be a determining factor in how the Anchorage economy performs in 1987.

Anchorage Employment Trends for Selected Primary Industries* and Service Oriented Industries**



*Mining, Construction, State & Local Government **Trade, FIRE and Services

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/ 11/86	r/ 10/86	11/85	Changes From: 10/86	 11/85
Nonag Wage & Salary	109400	111850	115450	-2450	-6050
Mining	3450	3500	4100	-50	-650
Construction	6650	7900	8150	-1250	-1500
Manufacturing	2500	2550	2650	-50	-150
Food & Kindred Prod	500	500	550	0	-50
Other Mfg	2000	2050	2100	-50	-100
Trans Comm & Utilities	9800	10150	9850	-350	-50
Trucking & Whseing	1200	1200	1200	0	0
Water Transportation	300	350	350	-50	-50
Air Transportation	3950	4150	3850	-200	100
Other Trans Comm & Utilities	4350	4450	4450	-100	-100
Trade	27100	27400	28900	-300	-1800
Wholesale	6100	6200	6500	-100	-400
Retail	21000	21200	22400	-200	-1400
Gen Merchandise	2050	2050	2200	0	-150
Food Stores	3050	3100	3200	-50	-150
Eating & Drinking Pl	8350	8500	8500	-150	-150
Other Retail Trade	7550	7550	8500	0	-950
Finance-Ins & R E	8200	8350	8650	-150	-450
Services & Misc	25350	25600	26350	-250	-1000
Government	26350	26400	26800	-50	-450
Federal	10000	9950	9800	50	200
State	7150	7200	7550	-50	-400
Local	9200	9250	9450	-50	-250

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/ 11/86	r/ 10/86	11/85	Changes From: 10/86	 11/85
Nonag Wage & Salary	117050	119650	123400	-2600	-6350
Mining	3450	3500	4100	-50	-650
Construction	7150	8600	8800	-1450	-1650
Manufacturing	2650	2700	2750	-50	-100
Trans Comm & Utilities	10600	10950	10550	-350	50
Trade	29000	29250	30850	-250	-1850
Finance-Ins & R E	8700	8850	9150	-150	-450
Services & Misc	26600	26900	27750	-300	-1150
Government	28900	28900	29450	0	-550

Fairbanks/Interior

By Neal Fried

1986 Beings New Economic Era

A new economic era began in Fairbanks in 1986. After five straight years of strong employment growth, Fairbanks' economy began to flounder. Employment declines signaled the end of the oil revenue fueled boom and the beginning of a new era characterized by employment losses followed by slow economic growth.

Year to year employment declines began in January and by the end of 1986 few industries were left untouched. Employment declines came so quickly that they caught most analysts off guard. Employment in Fairbanks had continued to grow through the last quarter of 1985 in almost every industry including construction, but construction employment did an about face in the first quarter 1986, plummeting 43% and pulling total employment below year-ago levels for the first time in six years.

As 1986 progressed, commercial and residential construction came to a virtual halt while public funded construction began to fall. Residential building permit data through October of 1986 indicates a two-thirds decline. Though a downturn in the construction cycle was expected, the actual declines were more severe.

On top of the downturn in construction came the news of plunging oil prices and revenues, which further devastated construction employment. The repercussions of falling oil revenues and declining construction employment began to affect the remaining industries in Fairbanks.

Trade, the largest and fastest growing industry in the private sector the past five years, was among the first industries to feel the repercussions of falling oil revenue and construction employment. Building supply stores were first, laying off workers as the declines in construction became evident. Additional employment declines in wholesale and retail trade followed. As income in the community began to decline and economic uncertainty became more pervasive, consumers purchased less.

While economic conditions have focused attention on local and state government budgets, the loss of employment in state and local government has thus far been small. Much of this has been accomplished through attrition and not filling vacant positions. Declines have been small but the fact that any layoffs occurred in 1986 in local and state government is significant. During past economic downturns Fairbanks has relied on government for some stability. Apparently this will not be the case this time, which may indicate the severity of the present economic contraction.

The severity of the economic contraction is also reflected in Fairbanks' unemployment rate. Fairbanks' unemployment rate reached its highest level in seven years in 1986. Fairbanks' average unemployment rate for the first 11 months of 1986 was 14.5% compared to 12.5% in 1985. The number of unemployed reached record levels, never falling below the 4,200 level compared to a low of 2,950 in 1985.

While competition for jobs has been vigorous throughout the 1980s in Fairbanks, a declining labor market takes on different dimensions. In such a labor market a person is no longer assured of finding employment after an exhaustive job search. Seasonal workers can no longer be certain they will find employment the following season. More workers who desire full-time work can only find part-time employment, and an increasing number of workers are employed in jobs underutilizing their skills. In the worst case, some workers give up looking for employment and drop out of the labor force.

While a declining labor market is adding to Fairbanks' economic woes, the Fairbanks economy does have its bright spots. The service industry is one of the few industries which has not experienced declines in 1986. Its diversity has provided it with greater resilience than most of the remaining industries. Engineering services will suffer during an economic downturn but repair services and tourism may grow. Employment in this sector will eventually suffer declines if the economic contraction is prolonged.

In addition to services, the finance, insurance and real estate industry posted small gains in 1986. The finance side grew slightly and the real estate sector remained flat.

One industry completely insulated and unaffected by the economic decline in 1986 has been the federal government. Federal government grew by approximately 7% in 1986. Most of this growth came from the military civilian side of employment. The first troops from the new Light Infantry Division appeared at Fort Wainwright in 1986. They were small in number (300) but it was a sign that the Light Infantry Division was going to arrive.

Though it is impossible to measure, the fact that the military was expanding in Fairbanks meant the declines that did occur could have potentially been even larger. Some of Fairbanks' businesses may have contracted further than they did and others may have closed down

Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

	p/ 11/86	r/ 10/86	11/85	Changes From: 10/86	 11/85
Nonag. Wage & Salary	27600	28850	29000	-1250	-1400
Mining	150	200	200	-50	-50
Construction	1900	2650	2650	-750	-750
Manufacturing	600	650	550	-50	50
Trans. Comm. & Utilities	2650	2800	2800	-150	-150
Trucking & Whseing	400	450	450	-50	-50
Air Transportation	900	950	900	-50	0
Other Trans. Comm. & Utilities	1350	1400	1450	-50	-100
Trade	5850	5950	6200	-100	-350
Wholesale	900	900	1050	0	-150
Retail	4950	5050	5150	-100	-200
Gen. Mer. & Apparel	600	550	600	50	0
Food Stores	750	850	750	-100	0
Other Retail Trade	3600	3650	3800	-50	-200
Finance-Ins. & R.E.	1050	1050	1050	0	0
Services & Misc.	5700	5750	5700	-50	0
Government	9700	9800	9850	-100	-150
Federal	2850	2950	2650	-100	200
State	4100	4100	4300	0	-200
Local	2750	2750	2900	0	-150

Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/ 11/86	r/ 10/86	11/85	Changes From: 10/86	 11/85
Nonag. Wage & Salary	31450	32900	32650	-1450	-1200
Mining	300	300	300	0	0
Construction	2000	2800	2750	-800	-750
Manufacturing	600	650	550	-50	50
Trans. Comm. & Utilities	2900	3150	3050	-250	-150
Trade	6300	6500	6550	-200	-250
Finance-Ins. & R.E.	1100	1100	1100	0	0
Services & Misc.	6100	6150	6000	-50	100
Government	12150	12250	12350	-100	-200

if this event was not on the economic horizon. The stationing of the Light Infantry provides Fairbanks with a psychological edge most other communities in the state do not enjoy.

Gulf Coast

By Neal Fried

1986 Employment Trends

In 1986 the Gulf Coast region joined the rest of the state in a new era of economic decline. Despite the region losing employment, not all census areas in the region lost employment according to the first six months of actual data. The Kenai Peninsula Borough census area experienced significant employment declines after five straight years of growth. The Valdez-Cordova census area experienced declines in employment in 1986, continuing a long term trend. On the other hand, Kodiak Island Borough registered growth during 1986.

The Kenai Peninsula

The Kenai Peninsula's employment declines came because of a downturn in the construction cycle and falling oil prices. Half of the Peninsula's industries lost employment, adding up to an employment decline of 3% for 1986. The significance is that employment fell after five years of strong growth.

The construction industry was the biggest contributor to employment declines, falling by 37% over the year. The residential and commercial construction market became saturated and public construction peaked. The transportation industry, which provides a great deal of support to the construction industry, followed the construction industry in terms of employment lost during 1986.

Employment losses did not stop with the construction and transportation industries. Trade, the Peninsula's largest private industry, also suffered losses in 1986 after growing relentlessly during the past boom. With income falling and economic uncertainty prevailing, consumers bought less. Government employment also began falling in 1986—again the significance was not how far but the fact that a traditionally stable sector experienced losses. According to the data in Table 1, only local government employment has declined, however, according to more recent statistics, state government employment experienced losses during the second half of the year.

From Table 1 it is apparent that the mining industry (oil) began 1986 very strong. Marathon Oil's new gas platform project in Cook Inlet increased employment temporarily but oil industry employment quickly deteriorated as oil prices tumbled. Though statistics are not yet available for the last half of 1986, it is probable that oil employ-

Table 1
Kenai Peninsula Borough
Employment by Industry
1985-1986*

	1985*	**1986***	**Percent Change 1985-1986***
Total Employment	11478	11136	-3.0%
Mining	766	1001	30.7%
Construction	1215	762	-37.3%
Manufacturing	1019	1095	7.4%
Trans. Comm & Utilities	961	751	-20.8%
Trade	2357	2221	-5.8%
Wholesale	381	375	-1.7%
Retail	1976	1846	-6.6%
Finance-Ins & R.E.	371	394	6.2%
Services & Misc.	1787	1959	9.6%
Government	3004	2947	-1.9%
Federal	199	217	9.1%
State	825	825	0.1%
Local	1981	1905	-3.8%

*Based on the first 6 months of each year
Source: Alaska Department of Labor, Research and Analysis Section, *Statistical Quarterly*

ment began declining during the latter half of the year. The sectors hardest hit were oil service companies operating both in the Cook Inlet fields and on the North Slope. One indicator pointing to employment losses is the oil rig count in Alaska which fell from 19 in 1985 to 7 in 1986. Though no exact number is available, large numbers of Peninsula residents who worked on the North Slope lost their jobs this past year.

Bright spots in Kenai's employment situation include the services and manufacturing industries. Services tend to be more resilient than most industries because it is broadly based. Another good tourism year helped bolster the service industry. On the other hand, services is not immune from the present downturn, and the longer the contraction lasts the more likely that services will join the other industries experiencing employment losses. Manufacturing was on the plus side in 1986 because of an exceptionally strong salmon season and the shellfish industry stabilizing.

The Peninsula's unemployment rate climbed dramatically in 1986. The number of unemployed for the first 11 months of 1986 was 3,029, or 35% higher than in 1985. The unemployment rate for the same time period was 16.8%, 3.4 percentage points above 1985's level, establishing a record high for the Peninsula.

Kodiak Island Borough

After lagging the statewide growth pace for five straight years, Kodiak appears to be turning around. In the past five years employment in Kodiak only grew during two years, compared to the state's uninterrupted strong growth. Now employment statewide is declining and Kodiak's employment grew by 2.5%—one of the few places in the state which can claim growth.

Not all of Kodiak's industries are growing but a majority of them are, including all of its basic industries (Table 2). Manufacturing, mostly fish processing, has been the largest contributor to this growth. Though a recovery in the king crab fishery has not occurred, it no longer is declining. The beginnings of a bottomfish industry has boosted Kodiak's fish processing employment and a good salmon season also helped. Manufacturing in 1986 also got a small shot in the arm when a logging operation began harvesting lumber after many years of dormancy.

In addition to employment growth in Kodiak's basic industries, a number of Kodiak's secondary industries have also grown. Finance, insur-

Table 2
Kodiak Island Borough
Employment by Industry
1985-1986*

	1985*	1986*	Percent Change 1985-1986*
Total Employment	4469	4582	2.5%
Construction	285	229	-19.5%
Manufacturing	1114	1283	15.2%
Trans. Comm. & Utilities	240	193	-19.4%
Trade	841	781	-7.1%
Finance-Ins. R.E.	106	110	4.3%
Services & Misc.	676	697	3.1%
Government	1210	1290	6.6%
Federal	242	246	1.4%
State	267	270	1.3%
Local	702	774	10.3%

*Based on the first 6 months of each year.
Source: Alaska Department of Labor, Research and Analysis Section, Statistical Quarterly

ance, and real estate; and services both experienced employment growth. This is not surprising considering that Kodiak's basic industries appear in good health. Even government has increased employment. Federal and state government only inched ahead but local government grew significantly. This is largely a result of a new school opening.

Construction was the biggest employment loser and this may be a result of completion of the Near Island Bridge and the Terror Lake Dam. Residential construction grew in Kodiak in 1986. Kodiak was the only community in the state that issued more residential building permits in 1986 than in 1985. Trade also experienced some losses but they were probably recouped during the last half of the year when the new Safeway opened.

Valdez-Cordova

Valdez and Cordova's economies were recently discussed in detail in October and November's *Alaska Economic Trends* and will therefore be only briefly analyzed.

Table 3
Valdez-Cordova
Employment by Industry
1985-1986*

	1985*	1986*	Percent Change 1985-1986*
Total Employment	3377	3247	-3.8%
Construction	170	115	-32.4%
Manufacturing	317	311	-2.1%
Trans. Comm. & Utilities	559	507	-9.3%
Trade	447	397	-11.2%
Finance-Ins. & R.E.	82	82	0.0%
Services & Misc.	546	561	0.3%
Government	1258	1275	1.4%
Federal	73	113	55.2%
State	498	500	0.4%
Local	688	663	-3.6%

*Based on the first 6 months of each year
Source: Alaska Department of Labor, Research and Analysis Section, Statistical Quarterly

Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/ 11/86	r/ 10/86	11/85	Changes From: 10/86	 11/85
Nonag Wage & Salary	19200	20350	20300	-1150	-1100
Mining	850	900	800	-50	50
Construction	1350	1800	2100	-450	-750
Manufacturing	2400	2800	2350	-400	50
Food & Kindred Prod	1750	2150	1700	-400	50
All Other Mfg	650	650	650	0	0
Trans Comm & Utilities	1650	1650	1800	0	-150
Trade	3550	3650	3850	-100	-300
Wholesale	450	450	500	0	-50
Retail	3100	3200	3350	-100	-250
Finance-Ins & R E	650	650	650	0	0
Services & Misc	3250	3350	3150	-100	100
Government	5500	5550	5600	-50	-100
Federal	550	550	550	0	0
State	1500	1550	1600	-50	-100
Local	3450	3450	3450	0	0

Nineteen-eighty-six was another sluggish year for the Valdez-Cordova area. Employment fell by 3.8% and a majority of its industries lost employment (Table 3). In the Cordova area fish processing employment fell because of a smaller salmon catch and continued poor shellfish harvest. Falling oil revenues put a crimp on construction and local government while Alyeska Pipeline Service Company pared their staff in Valdez. Through the first half of 1986, finance,insurance and real estate; services; and state government still held onto marginal levels of growth. This growth disappeared during the second half of 1986 because of the additional downward pressures put on the economy during the latter half of the year.

Southeast Alaska

By John Boucher

Manufacturing Helps Southeast Weather Storm

Through the first half of the year, Southeast Alaska estimates have consistently indicated a stronger economy in Southeast Alaska than in most of the rest of Alaska. Recent availability of ES-202 data (actual counts of employees from unemployment insurance tax reports) supports the conclusion reached earlier from employer survey data. That is, through the first half of 1986 Southeast Alaska is weathering the current economic troubles somewhat better than the rest of the state.

In terms of employment Southeast Alaska's manufacturing industry, in particular the lumber and paper products and seafood processing sectors, has kept the region from dipping significantly below 1985 employment levels. In June of this year manufacturing employment showed growth of almost 20% compared to the same month the previous year.

The 20% growth in manufacturing employment was needed to offset the employment losses in construction. Original estimates had placed the loss of construction employment in the 12% to 18% range over-the-year, but the downturn in construction turned out to be much greater. Actual data placed the over-the-year losses in construction employment down 35% from June 1985.

The actual data also indicates a stronger transportation industry than was originally anticipated, particularly in the air transportation and other transportation sectors. While gains were expected to be realized in these two industries because of Alaska's growing tourist trade, the gains were even larger than employer survey data indicated.

Table 1
Southeast Alaska & Statewide Employment
Year to Year Change

	Statewide	% Change	Southeast	% Change
January	-640	-0.3%	187	0.7%
February	-140	-0.0%	270	1.0%
March	-2960	-1.3%	-40	-0.1%
April	-6688	-3.0%	-629	-2.1%
May	-6734	-2.9%	-58	-0.1%
June	-9715	-4.1%	615	1.9%

Not all industries, however, benefitted from the growing tourist trade as much as the transportation industry. The services industry, which was projected to grow over the last year, was at 1985 employment levels because of a drop in employment in the hotel and motel sector of the industry. In June of 1986 hotel and motel employment was off almost 25% from the previous year.

Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

	p/ 11/86	r/ 10/86	11/85	Changes From: 10/86	11/85
Nonag. Wage & Salary	27600	28800	28150	1200	-550
Construction	1150	1300	1550	-150	400
Manufacturing	3050	3700	2400	-650	650
Food & Kindred Prod	550	850	450	-300	100
Lumber & Paper Prod	2300	2600	1750	300	550
All Other Mfg	200	250	200	-50	0
Trans. Comm. & Utilities	1900	2000	1800	-100	100
Trade	4400	4400	4450	0	-50
Wholesale	350	350	350	0	0
Retail	4050	4050	4100	0	-50
Finance-Ins. & R.E.	1100	1100	1150	0	-50
Mining, Services & Misc	4350	4550	4350	-200	0
Government	11650	11750	12450	100	800
Federal	2100	2100	2100	0	0
State	5000	5150	5500	150	-500
Local	4550	4500	4850	50	-300

Current Trends

Southeast Alaska wage and salary employment decreased by 1,200 jobs in November as some of the seasonal industries which have carried the region through the summer began to gear down. Manufacturing employment remains at a much higher level of employment than in 1985 while construction and government employment are posting significant over-the-year losses.

Unemployment in the region remained near October's level, increasing by one-tenth of a percentage point to 10.8 percent. The Prince of Wales-Outer Ketchikan census area had the highest unemployment in the region at 15.0 percent unemployed, followed by Skagway-Yakutat-Angoon at 13.2 percent. Lowest unemployment rates in the region were posted in Sitka (8.4 percent), and Juneau (9.6 percent).

Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 11/86	R/ 10/86	11/85	P/ 11/86	R/ 10/86	11/85	P/ 11/86	R/ 10/86	11/85
Mining	1221.99	1113.51	1240.28	52.9	48.1	50.5	23.10	23.15	24.56
Construction	899.92	1049.46	913.07	38.1	42.3	38.3	23.62	24.81	23.84
Manufacturing	484.61	507.85	473.00	36.3	39.8	34.3	13.35	12.76	13.79
Food & Kindred Prod.	216.72	247.59	221.37	28.0	33.1	23.5	7.74	7.48	9.42
Lumber & Paper Prod.	677.47	743.71	615.09	44.6	48.8	41.9	15.19	15.24	14.68
Trans., Comm. & Utilities	548.98	559.40	594.00	34.9	36.9	37.5	15.73	15.16	15.84
Trade	361.57	364.76	379.82	32.9	33.1	32.8	10.99	11.02	11.58
Wholesale	510.22	500.08	523.78	38.8	38.0	36.5	13.15	13.16	14.35
Retail	313.10	320.36	331.17	31.0	31.5	31.6	10.10	10.17	10.48
Finance-Ins. & R.E.	420.99	401.48	412.25	35.2	34.7	33.3	11.96	11.57	12.38

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

Benchmark 1985

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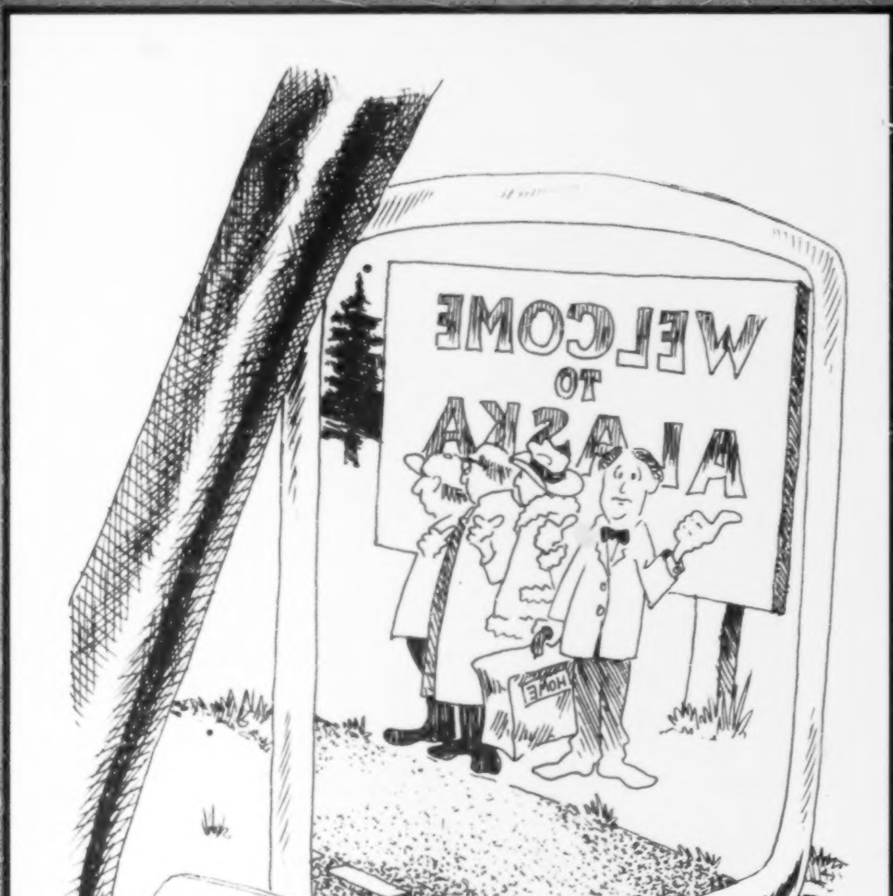
FEBRUARY 1987
ALASKA ECONOMIC TRENDS

laska Department of Labor Steve Cowper, Governor, State of Alaska


WELCOME
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Population Growth and

Alaska Economic Trends

Steve Cowper, *Governor, State of Alaska*

Jim Sampson, *Commissioner, Department of Labor*

Chuck Caldwell, *Chief, Research and Analysis*
Edward Eboch, Ph.D., *Editor*

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1985.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Population Growth and Migration in Alaska

By Greg Williams

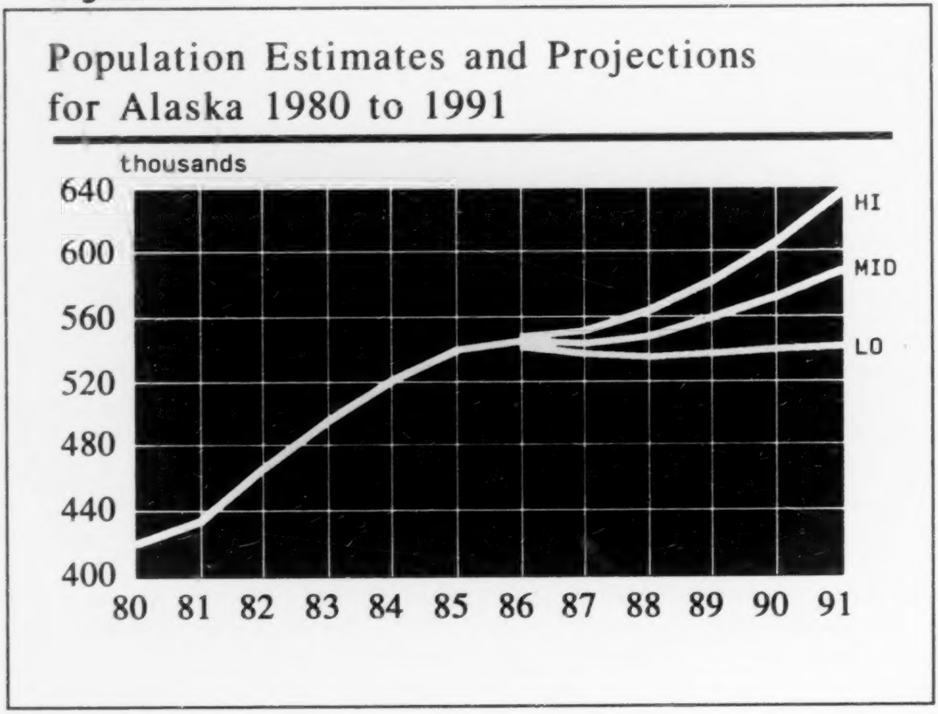
Population Trends

The first half of the 1980s has been among the most rapid periods of growth in Alaska's history. The population of Alaska in 1986 is 30% greater than in 1980 and almost four times what it was in 1950, just 36 years ago. Projections of the change in Alaska's population for the last half of the 1980s will be drastically different from that experienced in the first half of the decade (Figure 1).

While no official estimate exists yet for 1986, Alaska's population is projected to be between 542,200 and 548,600 for July 1, 1986. This represents a combination of two trends: a gain of between 10,500 and 10,600 persons through natural increase and a loss of between 1,500 and 8,000 persons through migration. A wide range between the high and low assumptions of net migration is assumed because of the uncertainty of the Alaska economy.

The growth of Alaska's population in the period from July 1986 to July 1987 should be similar to that for the post pipeline period of 1977-78.

Figure 1



Population Estimates and Projections for Alaska 1980 to 1991

A real loss of population is projected in 1986-87 from 1985-86. For July 1, 1987, the population is projected to be between 537,100 and 548,600. Again, Alaska should gain 10,200-10,700 persons through natural increase and loose between 7,800 and 15,200 persons through migration. The best estimate is a migration loss of about 12,000 by July 1987. Population projections from 1986 through 1991 are shown in Table 2.

U.S. Census Bureau estimates show slightly less growth than our estimates in the 1980-1985 period because the U.S. Census Bureau does not attempt to adjust for what we estimate was a 3.6% census error in Alaska in 1980. Even by Census Bureau standards, however, Matanuska-Susitna Borough was the fastest growing county in America during that period. The Kenai Peninsula Borough ranked number 4 and Kodiak number 15.

The population estimate for the United States on July 1, 1985 was 238,740,000. The Department of Labor estimates Alaska's population on July 1, 1985 was 539,600 or .23% of the U.S. population. At this population, Alaska would rank 49th among the 50 states and the District of Columbia. Alaska's population would exceed that of Vermont and Wyoming.

Components of Population Change

There are two ways in which the population of an area changes: natural increase and net migration (Figure 2).

Natural Increase

Natural increase is a function of births and deaths in a population. It is the relatively stable component of population change and a very important element which can be counted on in the growth of Alaska's population. Natural increase produces growth in the state's population equal to approximately 2% every year.

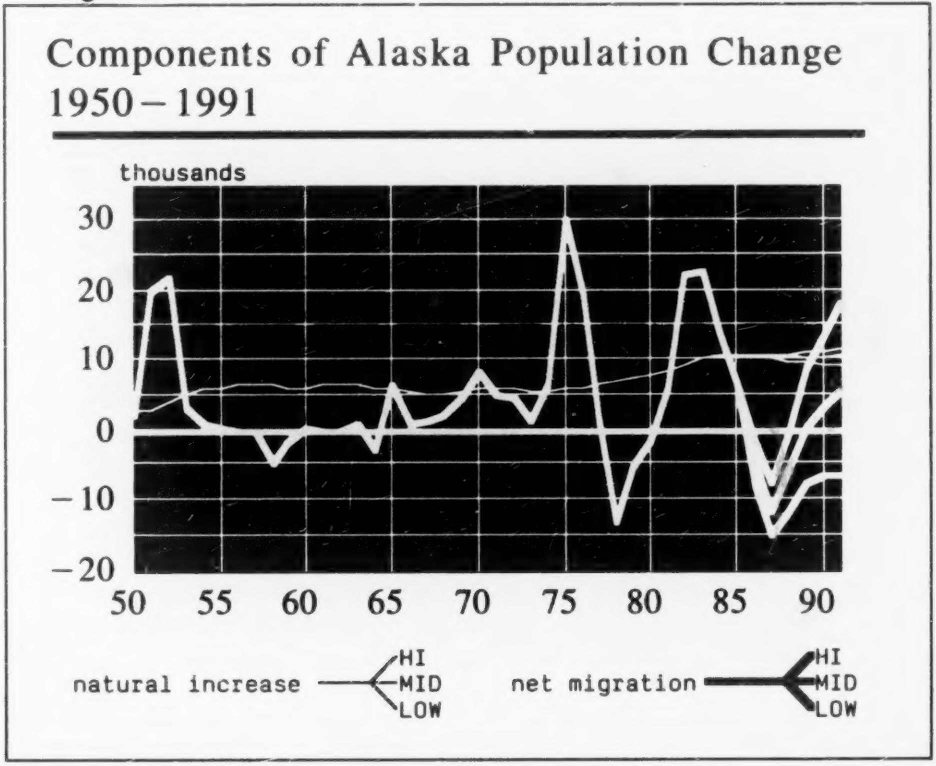
Alaskan births are currently equivalent to about 2.4% of the population and deaths are equivalent to .39% of the population. The net growth, as a result of natural increase, is 2.04% per year. No matter what happens to the migration to and from Alaska during the remainder of the 1980s, Alaska will add between 9,000 and 11,000 persons to its population each year through natural increase. Between July 1, 1984 and July 1, 1985, 12,667 persons were born in Alaska and 2,024 persons died, for a net natural increase of 10,653 persons.

The Alaska Department of Labor has recently completed a set of unabridged life tables which show life expectancy by year by age, race and sex for 1977-83 (Table 1). Life expectancy in Alaska at birth in 1980 was as follows: white males, 69.8 years; white females, 77.5 years; Native males, 61.3 years; Native females, 71.3 years.

In comparison, life expectancy for the U.S. in 1980 was: white males, 70.7 years; white females, 78.1 years; other race males, 65.3 years; other race females, 73.6 years. Nationwide life expectancy has increased between 1970 and 80 by about 2.7 years for whites and about 4.2 years for other races. Life expectancy for Alaska Native males is less than that of Alaska white males by 8.5 years and life expectancy for Alaska Native females is less than their white counterparts by 6.2 years.

Alaska currently has the highest birth rate in America. While current fertility fluctuates depending on a variety of social and economic factors, the general trend in births does not generally change pace or direction rapidly. In 1985, the Total Fertility Rate for Alaska was 2.42 compared to 1.87 for the U.S. as a whole. This rate controls for differences in the age structure of the two populations and can be interpreted as the average number of children a woman of childbearing age would have if she were to continue to bear children at the same rate as women in these ages are currently bearing children. A completed fertility of 2.1 is considered to be replacement or zero population growth.

Figure 2



Components of Alaska Population Change 1950 – 1991

The amount of growth of the population due to natural increase also means that the *net balance* of migration would have to decline by 9,000-11,000 per year for Alaska to lose population. Historically, this has happened in only one year (1977-78) since 1949. It will probably happen again in 1986-87 and possibly 1987-88 depending on the condition of Alaska's economy. The trend in the individual components of natural increase are also of interest.

Migration

Migration is the volatile component in Alaska's population fluctuations, often changing dramatically from one year to the next. The most common migration statistic reported is "net" migration. Until the last couple of years net migration information was all that was available and net migration was used in almost all population models. This information was frequently derived as a residual population change between censuses after births and deaths were accounted for.

The latest models use data on "gross" migration. This allows the independent analysis of migration into Alaska as well as analysis of migration out of the state. Generally, gross migration flows are substantially higher than net flows. If 10,000 persons move into an area and 8,000 persons move out of an area the net balance is 2,000 persons but the gross movement of persons is 18,000.

Some businesses such as real estate that benefit from the turnover of property are more interested in the total turnover of persons than the net gain or loss. Other businesses, such as personal services, judge only the net increase or decrease in persons as reflective of changes in demand for their business. The overall growth or decline of population however depends on the net balance of population rather than the gross movement.

Alaska is a state with a high gross migration. A large number of persons normally move to Alaska or from Alaska in any given year. For example between 1984 and 1985, it is estimated that some 48,600 persons moved to Alaska from outside the state. At the same time some 41,700 persons left Alaska. The net balance of migration was 6,900.

Trends in the net balance of migration can be as a result of a change in either in-migration or out-migration. Trends in in-migration to Alaska in the 1980s show a downturn from about 60,100 in 1981-82 to about 48,600 in 1984-85. Migration from Alaska, on the other hand, has been relatively less volatile so far in the 1980s, increasing from a low of about 36,000 in 1982-83 to a high of about 41,700 in 1984-85

While the level of out-migration has increased, the recent slowdown in growth is not so much a matter of people leaving the state at an increasing rate as it is a slowdown in the number of persons moving to Alaska from the rest of the nation. This makes it appear that more persons are leaving, because those who would normally leave are no longer being replaced as rapidly as in the past.

While the exact proportion is not known, military and military dependents probably account for less than 20% of the gross migration to and from the state. In some census areas military migration accounts for substantially more of the migration.

The levels of in-migration and out-migration chosen in the current series of population projections represent a combination of recent trends in migration to and from the state, as well as an evaluation of historic levels of in-migration and out-migration consistent with a range of economic conditions. The end result is three series of net migration, shown in Table 2, which approximate the range of economic conditions which may potentially occur during the next five years in Alaska.

The middle level migration scenario assumes a slight rise in migration from Alaska in 1985-86 and a continued decline in migration to Alaska (begun in 1982) through the 1986-87 period. This decline is followed by a gradual return to migration levels comparable to those experienced during 1981 and 1985 when there was an average annual rate of growth in the population of about 3.3%.

While this projection would show a net loss of migrants in 1985-86, 1986-87, and 1987-88, only in 1986-87 would the loss be substantial enough to outstrip natural increase and produce a decline in the state's population.

This scenario represents a "bust" followed by a return to conditions similar to those which occurred from the late 1960s and early 1970s, prior to pipeline construction.

The low series assumes that the current trends in migration to and from the state continue into 1987 and that a period of economic hardship continues through 1991, producing a continued net loss of migrants through the entire projection period. While this is a possibility it seems unlikely that the current downturn would continue for that period of time.

The impact of the worse case would be to hold the state's population at approximately its current level through 1991. In its extreme, this represents a long term "bust" scenario. There is no example of this extreme a net loss of migrants in Alaska since World War II, and it seems unlikely that this extreme will be met or exceeded during the next five years.

The high series assumes an optimistic case. It assumes the current trend in migration through 1987 followed by a more rapid recovery by 1989, and a return to positive economic conditions by 1990-91 achieved through a return of oil or a combination of other sectors to levels seen in about 1984.

This case represents a short term bust followed by a return to moderate "boom" conditions. The conditions needed for this scenario assume that the decline in the price of oil is a temporary phenomena and/or that another major project or combination of state, national, or international economic conditions will cause a return to moderate economic growth in the state.

A wide range between the high and low assumptions of net migration is assumed, given the uncertainty as to the future course of the state's economy. These assumptions have been chosen in part because of the wide range of possible outcomes in the near term, and in part to show what the demographic impact of these extremes would be for planning purposes. It is unlikely that conditions will be better or worse than the extremes set forth here.

As shown in Table 2, major increases due to migration have occurred in three periods. The first was in 1951-1952, the second was in 1975-76 and the third was in 1982-1984. (There was a minor period of moderate in-migration in about 1970.) Historically, there were net losses of migrants in 1978-80, 1956-59 and 1964.

In only 10 of the last 36 years has the average annual rate of growth been over 4%. During 17 of the last 36 years, the average annual rate of increase has been under 3%. Thus the current slowdown in growth is not at all out of character with the post World War II period.

It should be remembered that the larger the population, the less impact a given "boom" or "bust" has upon it. It is worth noting that the average annual rate of change in the population of the U.S., as a whole, has been under 2% since 1950, and under 1% since 1980, and the decline in the rate of growth is projected to continue.

Projected Growth

In the middle series, Alaska's population would increase from 539,600 persons in 1985 to 588,300 in 1991 (Figure 1 and Table 2). Most of this growth would occur after 1989. During the 1986-1988 period, population growth in the middle series would be less rapid than it has been in the past (under 1% per year with a small loss in 1987). The U.S. rate of growth during the 1980s has been, and is projected to be, about 0.92 percent per year.

In the low series, population would decline from a high of 542,200 in 1986 to low of 535,000 in 1988, and increase again to 541,800 by 1991. In the high series, the population would reach 563,100 by 1988 and then increase to 636,700 by 1991. Even in the high series, however, the average annual rate of growth does not reach 5% by 1991.

A more detailed discussion of Alaska population trends, migration and the population of census areas and places is available in *Alaska Population Projections* and *Alaska Population Overview* currently available from the Alaska Department of Labor. If you are currently on our mailing list the publication will automatically be sent to you. If you are not on our mail list and would like to be, or if you wish to receive a copy of these reports, contact: Research and Analysis Section, Alaska Department of Labor, P.O. Box 25501, Juneau, AK 99802-5501, or phone (907) 465-4500.

Table 1
Life Expectancy at Birth
by Race and Sex
Alaska and the United States
1970-80

Life Expectancy at Birth (Years)	Total			White			Alaska Natives (U.S. Other Races)		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Alaska									
1970	69.3	66.1	74.0	n/a	n/a	n/a	n/a	n/a	n/a
1980	72.1	68.8	76.5	73.1	69.8	77.5	65.7	61.3	71.3
United States									
1970	70.9	67.1	74.8	71.7	68.0	75.6	65.3	61.1	69.4
1980	73.7	70.0	77.5	74.4	70.7	78.1	69.5	65.3	73.6

Source: *Alaska Life Tables for 1977-83*, Demographic Report No. 1, Alaska Department of Labor, Research and Analysis, 1986.

Alaska

By Edward Eboch

Price Changes in Alaska

While there is no statewide measurement of the rate of inflation in Alaska, the U.S. Department of Labor measures price changes in Anchorage. The Anchorage consumer price indexes (CPI) are used by many communities, private companies, and public agencies around the state to adjust contracts, social benefits, and other agreements. Using the Anchorage CPI to make these adjustments assumes that prices in all communities increase at the same rate as Anchorage prices.

During the early 1980s, the number of businesses increased rapidly and residential and commercial space expanded in response to increased demand and expectations of continued expansion. The result was a rapid increase in Anchorage prices. All that changed with the drop in the world price of oil at the end of 1985. As oil prices declined, the oil companies cut back employment and other expenditures. With less oil related revenue available to the state, cutback in state expenditures quickly followed.

The decline in economic activity was quick to impact prices, especially real estate. The drop in the price of oil was also translated into a drop in fuel prices. As a result, beginning in March 1986, the Anchorage CPI began to drop and is just now at last years level. The November 1986 Urban Wage Earner and Clerical Workers index of price changes (CPI-W) indicates a decline in prices while the all Urban Consumer index of price changes (CPI-U) indicates only a modest increase in prices in Anchorage since November 1985 (Table 1). The increase in the 1986 Annual Average CPI (the average of the bimonthly indexes in 1986) from the 1985 Annual Average CPI is modest.

Although the current changes in prices as measured by the Anchorage CPI may be reasonably accurate, it may be a mistake to use this index to measure price changes from 1980. While the drop in real estate prices are now being measured in the Anchorage CPI, the CPI did not accurately account for the price increase in the housing component from 1980 to 1983. Because of difficulties in measuring the impact the Alaska Housing Finance Corporation had on housing costs, AHFC financed housing or loans were excluded from the BLS survey. Housing data from similar sized cities in the Western Region of the U.S. were substituted when the Anchorage sample was inadequate.

During this period, rent and real estate were increasing dramatically in price in Anchorage while most Western states had no increase or modest increases in housing costs. The housing component was typically 40+% of the Anchorage CPI during this period. The effect of this substitution was to most likely understate the increase in the Anchorage CPI from 1980 to 1983. (For a detailed discussion of price indexes, see *Alaska Cost and Income Measures* published by the Alaska Department of Labor, Research and Analysis.)

While Juneau and Fairbanks may have experienced similar movements in prices as Anchorage, especially regarding housing prices, it is doubtful that other communities in the state previously had, or are now having the same experience as Anchorage—little or no price change. Even in Anchorage, Juneau, and Fairbanks, the change or lack of change in prices, depending on the item, will affect individuals and firms differently.

Impacts on Communities

Not all communities expanded at the rate of Anchorage during Alaska's economic boom. Those Southwest and Gulf Coast communities dependent on the fisheries industry had some disappointing years during the period that Anchorage and other areas of Alaska were enjoying the oil related boom. Beginning in 1983 the shell fish industry declined, negatively impacting many Southwest and Gulf Coast communities. Since the fishing industry is important to these communities' economies, its decline discouraged over expansion just as state government was beginning to increase spending and expanding employment in these communities.

A similar experience was affecting many of the Southeast communities. Disappointing timber harvests discouraged expansion in many communities, even as state funds to the communities and state employment in these communities were on the rise.

Many communities in Alaska missed the economic boom that was enjoyed by much of Alaska, but are now enjoying relatively prosperous times. The fishing industry enjoyed perhaps its best two years in 1985 and 1986. At the same time, the forest products industry was recovering from depressed employment. As a result, prices in communities dependent on forestry and fishing did not follow Anchorage prices then and are unlikely to follow Anchorage prices now.

Impacts on Individuals

The lack of change in the Anchorage CPI is largely explained by the increase in other prices which were offset by the decline in the housing segment of the CPI since January 1985. Those individuals who own their housing have experienced a real increase in their cost of goods and services.

When adjustments are made to the Anchorage CPI to exclude the housing component, the increase in prices since January 1985 of the remaining items are over twice that reported by the index (Table 2). Not everyone has enjoyed the moderation of prices equally.

For those individuals or families who purchased a house before 1985, and have a fixed house payment, prices of goods they must purchase including their house payments, have not declined or held steady this past year but have increased. With many AHFC loans requiring an increased payment schedule, house payments have increased. Worse yet, these families probably feel poorer than they did only several months ago because much of their savings in the form of equity in their home has been lost as house prices decline.

The same situation may also hold true for many investors with a fixed payment on their commercial or residential rental unit. With property payments fixed and other costs rising at twice the Anchorage CPI rate their profits become squeezed. Rent payment increases based on the CPI are unlikely to reflect the increase in their costs.

Conclusion

Perhaps the only bright spot in Alaska's current recession, is the current trend in prices. To the extent that stable prices are a result of greater competition, this change is beneficial, especially in the long term. As can be seen from the third quarter 1986 Inter-City Cost of Living Index (Table 3) costs make Alaska less competitive as a place to locate a business. The reduction in costs should improve the competitive position of Alaska as a place to do business in the future.

For communities, especially smaller communities, around the state it is preferable that the national CPI be used in adjusting for price changes. While a case can be made for using the Anchorage CPI in Anchorage, and perhaps Juneau and Fairbanks, even here it would only apply to those people who are renting or currently purchasing a house.

According to the Bureau of Labor Statistics the national index is preferred over any local index when it comes to use in escalator agreements. In addition, the most accurate measurement of price changes is the change in an annual index, especially for local areas. Local area indexes are based on smaller samples and are therefore subject to more sampling and other measurement error than the national index.

The combination of sampling error, price changes occurring at different rates and times, and the past housing measurement problems suggest that the national CPI is a better measurement for escalator clauses for nearly all communities in Alaska and for most individual situations.

Current Events

Employment losses remained at 5% below last year in December. After a quick decline in employment over the summer we now seem to be tracking last year's seasonal employment swings but at this 5% loss. While the early losses were in construction and construction related employment, the more recent declines have been in oil and government sectors and the secondary industries.

The unemployment rate has leveled off at 11.0% as the work force has declined with the loss in employment. This suggest that as people lose their jobs that more than the usual number are choosing to leave Alaska to where job prospects are better. With additional cuts in state expenditures expected and the oil companies continuing to prune their work force and reduce oil field development, one can expect employment to continue its year-to-year slide.

Table 1
Anchorage
Consumer Price Index

	All Urban Consumer	Percent Change Previous Year	Urban Wage Earner & Clerical Worker	Percent Change Previous Year
November 1985	286.9	3.4	280.1	3.4
January 1986	287.1	3.2	280.2	3.1
March 1986	291.2	4.0	284.4	4.1
May 1986	288.9	3.6	281.8	3.6
July 1986	284.1	0.4	276.9	0.3
September 1986	286.2	0.6	277.9	0.2
November 1986	287.8	0.3	279.7	-0.1
Annual Average				
1985	282.3		275.4	
1986/1	287.6	1.9	280.2	1.7

Source: U.S. Department of Labor, Bureau of Labor Statistics.

/1 Preliminary estimate

Table 2
Anchorage
Consumer Price Indexes

All Urban Consumer

	Relative Importance	September 1986	January 1985	Percent Change
All Items	100.00	286.20	278.30	2.84
Food & Beverages	18.57	325.80	303.10	7.49
Housing	40.25	264.60	272.00	-2.72
Apparel & Upkeep	5.19	219.10	199.30	9.93
Transportation	21.15	287.00	292.90	-2.01
Medical Care	5.08	498.80	386.30	29.12
Entertainment	4.94	295.50	274.50	7.65
Other Goods & Services	4.84	318.80	273.10	16.73

Urban Wage Earners & Clerical Workers

	Relative Importance	September 1986	January 1985	Percent Change
All Items	100.00	277.90	271.70	2.28
Food & Beverages	19.57	324.10	301.40	7.53
Housing	38.36	253.50	259.70	-2.39
Apparel & Upkeep	4.89	214.00	198.90	7.59
Transportation	23.37	285.60	294.40	-2.99
Medical Care	4.52	464.80	373.80	24.34
Entertainment	4.64	270.40	250.70	7.86
Other Goods & Services	4.64	321.40	278.40	15.45

Source: CPI Detailed Report, U.S. Department of Labor, Bureau of Labor Statistics.

1/ Relative importance of Components in the Consumer Price Index, 1985, U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2261, April 1986

Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	p/ 12/86	r/ 11/86	12/85	Changes From: 11/86	 12/85
Nonag. Wage & Salary	213000	217600	224500	-4600	-11500
Mining	7600	7800	9100	-200	-1500
Construction	11200	13500	14900	-2300	-3700
Manufacturing	8700	9300	8000	-600	700
Food & Kindred Prod.	3100	3400	2800	-300	300
Lumber & Paper Prod	2500	2700	1800	-200	700
All Other Mfg.	3100	3200	3400	-100	-300
Trans. Comm. & Utilities	17900	18300	18300	-400	-400
Trucking & Whseing.	2100	2100	2100	0	0
Water Transportation	1000	1200	1200	-200	-200
Air Transportation	5800	5900	5900	-100	-100
Other Trans. Comm. & Utilities	9000	9100	9100	-100	-100
Trade	44000	43800	47000	200	-3000
Wholesale	7600	7700	8500	-100	-900
Retail	36400	36100	38500	300	-2100
Gen. Mer. & Apparel	5700	5600	6000	100	-300
Food Stores	6100	6200	6300	-100	-200
Eating & Drinking Pl.	12800	12800	13600	0	-800
Other Retail Trade	11800	11500	12600	300	-800
Finance-Ins. & R.E.	12600	12700	12700	-100	-100
Services & Misc.	43000	43300	45000	-300	-2000
Government	68000	68900	69500	-900	-1500
Federal	18700	18600	17900	100	800
State	19000	19600	20100	-600	-1100
Local	30300	30700	31500	-400	-1200

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1985.

p/ Denotes preliminary estimates.
r/ Denotes revised estimates.

Table 3
Inter-City Cost of Living Index /1
Third Quarter 1986
All-Items & Selected Indexes

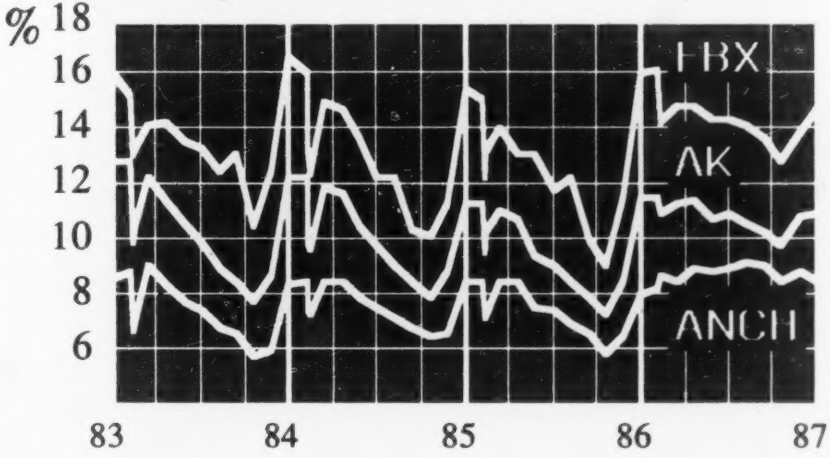
City and State	All-Items Index	Grocery Items	Housing	Utilities
Anchorage AK	139.4	129.3	160.8	100.4
Fairbanks AK	141.7	128.3	130.3	158.3
Juneau AK	144.9	130.8	164.3	138.9
Los Angeles CA	115.3	101.1	159.0	64.3
Denver CO	101.1	97.3	117.4	77.6
Portland OR	108.7	109.2	109.9	77.1
Seattle WA	105.2	107.8	106.4	51.7
All City Average	100.0	100.0	100.0	100.0

Source: Inter-City Cost of Living Index, Third Quarter 1986, American Chamber of Commerce Research Association.

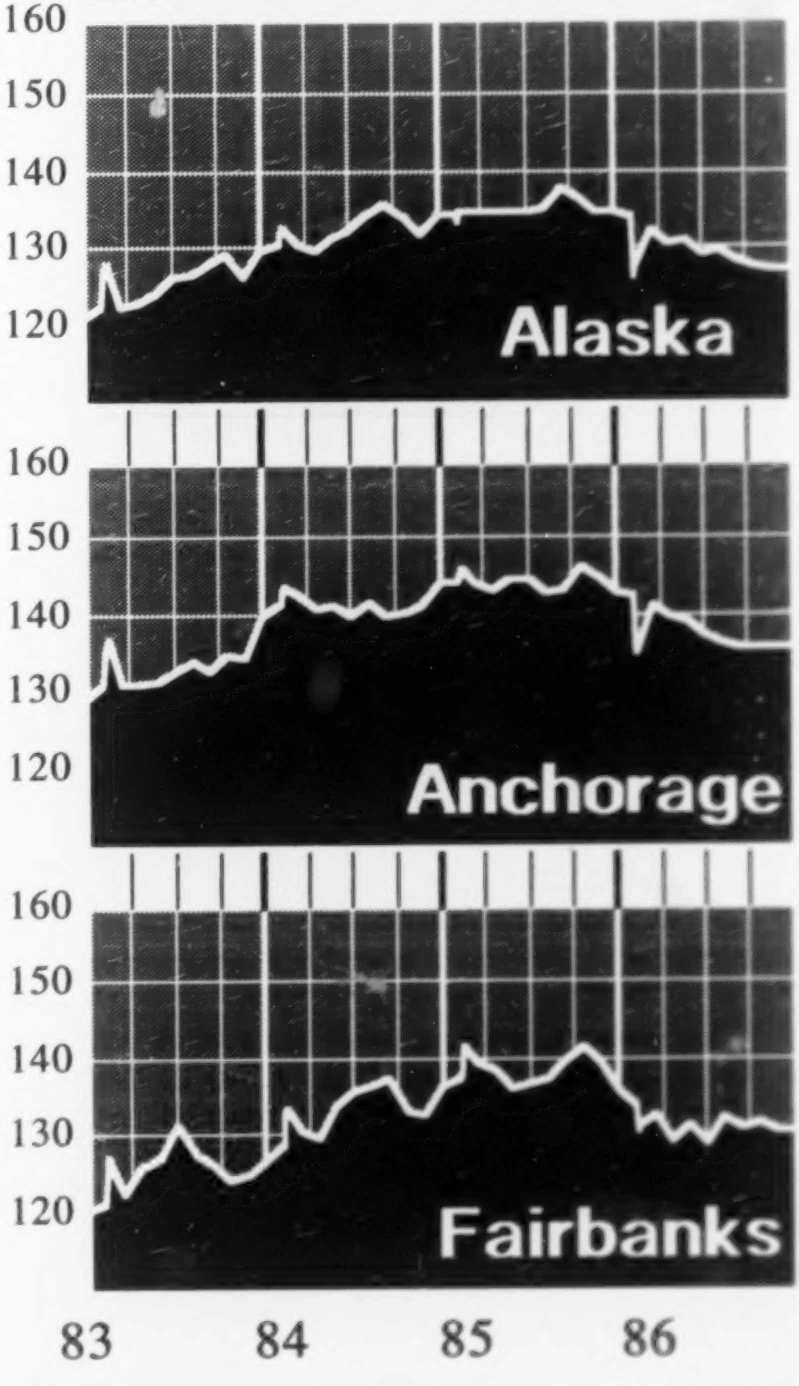
1/ The ACCRA index compares a limited number of items between communities and should not be confused as a consumer price index. For a detailed discussion about this index see *Alaska Cost and Income Measures*, Alaska Department of Labor, Research and Analysis or contact participating chamber offices. ACCRA report information is available from participating chamber offices, including the Anchorage Chamber which began ACCRA research in 1984, the first in Alaska.

UNEMPLOYMENT RATE

not seasonally adjusted
1983 to present



COMPOSITE NONAG. EMPLOYMENT INDEXES



SEASONALLY ADJUSTED 1983 TO PRESENT

source: ak. dept. of labor

Table 2
Annual Components of Population Growth for Alaska
1950-91

	July 1 Population			Average Annual Rate of Increase			Population Change			Natural Increase			Net Migration		
Year	Low	Middle	High	Low	Middle	High	Low	Middle	High	Low	Middle	High	Low	Middle	High
1949		132,600													
1950		137,100			3.34			4,500			2,400			2,100	
1951		160,000			15.42			22,900			2,800			20,100	
1952		185,500			14.76			25,500			3,820			21,680	
1953		193,800			4.38			8,300			4,990			3,310	
1954		200,100			3.20			6,300			5,670			630	
1955		206,500			3.15			6,400			5,990			410	
1956		212,400			2.82			5,900			6,260			-360	
1957		218,600			2.88			6,200			6,490			-290	
1958		220,100			0.68			1,500			6,250			-4,750	
1959		224,000			1.76			3,900			5,660			-1,760	
1960		230,400			2.82			6,400			6,040			360	
1961		236,700			2.70			6,300			6,260			40	
1962		242,800			2.54			6,100			6,320			-220	
1963		249,900			2.88			7,100			6,350			750	
1964		253,200			1.31			3,300			6,100			-2,800	
1965		265,200			4.63			12,000			5,780			6,220	
1966		271,500			2.35			6,300			5,490			810	

1967		277,900			2.33			6,400			5,110			1,290	
1968		284,900			2.49			7,000			5,033			1,967	
1969		294,600			3.35			9,700			5,340			4,360	
1970		308,500			4.61			13,900			5,860			8,040	
1971		319,600			3.53			11,100			5,990			5,110	
1972		329,800			3.14			10,200			5,665			4,535	
1973		336,400			1.98			6,600			5,310			1,290	
1974		348,100			3.42			11,700			5,365			6,335	
1975		384,100			9.83			36,000			5,765			30,235	
1976		409,800			6.47			25,700			6,122			19,578	
1977		418,000			1.98			8,200			6,532			1,668	
1978		411,600			-1.54			-6,400			6,956			-13,356	
1979		413,700			0.51			2,100			7,334			-5,234	
1980		419,800			1.46			6,100			7,664			-1,564	
1981		433,800			3.28			14,000			8,088			5,912	
1982		465,200			6.99			31,400			9,026			22,374	
1983		497,600			6.73			32,400			9,876			22,524	
1984		522,000			4.79			24,400			10,376			14,024	
1985		539,600			3.32			17,600			10,653			6,947	
1986	542,151	545,200	548,562	0.47	1.03	1.65	2,551	5,600	8,962	10,589	10,528	10,466	-8,038	-4,928	-1,504
1987	537,080	543,903	551,506	-0.94	-0.24	0.54	-5,071	-1,297	2,944	10,253	10,502	10,605	-15,324	-11,799	-7,661
1988	534,940	548,497	563,068	-0.40	0.84	2.07	-2,140	4,594	11,562	9,754	10,330	10,707	-11,894	-5,736	855
1989	536,848	559,077	582,546	0.36	1.91	3.40	1,908	10,580	19,478	9,458	10,263	10,882	-7,550	317	8,596
1990	539,375	572,346	607,030	0.47	2.35	4.12	2,527	13,269	24,484	9,182	10,156	11,212	-6,655	3113	13,272
1991	541,754	588,315	636,683	0.44	2.75	4.77	2,379	15,969	29,653	8,974	10,425	11,645	-6,595	5544	18,008

Alaska Department of Labor, Research & Analysis, 1986

Anchorage/MatSu

By Greg Huff

Current Trends

Anchorage nonagricultural wage and salary employment continued to deteriorate in December. The number of jobs declined by 6,550 since December 1985, a 5.7% drop, the largest percent decline of any month during 1986. Employment declines in 1986 started with decreases in construction and construction related activities, followed by declines in oil and gas industry related employment, and state and local government employment.

As these industries deteriorated, layoffs increased in the support sector. In December, for the first time in 1986, over-the-year declines in trade industry employment surpassed the employment losses in the construction industry, something likely to continue into 1987. Retail merchants hired some additional help during the 1986 Christmas buying season, but not nearly at the levels of 1985.

How Far Can Employment Fall

The key factor to how far Anchorage employment levels will fall in 1987 is the status of state revenues. During the 1980 to 1985 period state expenditures generated more jobs than any other single factor in the Anchorage economy.[1] In turn, oil prices are the primary factor in determining state revenues.

Since 1980 oil has accounted for 83% to 90% of total state revenues. Figure 1 illustrates the close relationship between oil prices and state revenues, while Figure 2 illustrates the relationship between the change in Anchorage employment levels and the magnitude of state revenues and expenditures.[2]

Notice that as state revenues increased, the Anchorage employment growth rate also increased, but by 1983 declining revenue was followed by a declining employment growth rate and by 1986 employment ceased to expand and began to decline. The decline was slow at first, but it gained momentum as 1986 proceeded. Oil prices fell rapidly from November of 1985 until July 1986 and rose only moderately thereafter (Figure 3).

State revenue projections published by the Department of Revenue in January 1987 show revenues falling from 3.08 billion for Fiscal Year 1986 to 1.4 billion in Fiscal Year 1987 and 1.33 billion in 1988 (nominal dollars). Not since 1979 have state revenues been smaller. In real terms

Labor Force By Reg

	Labor Force			Uner	
	P/ 12/86	R/ 11/86	12/85	P/ 12/86	11
Alaska Statewide	244401	246282	247995	26982	27
Anch.-MatSu Region	132437	132809	135518	12362	12
Anchorage Borough	116065	116433	118616	9864	10
MatSu Borough	16372	15376	16902	2498	2
Gulf Coast Region	25535	26156	25971	3910	4
Kenai Peninsula Bor	16216	16794	15375	2840	3
Kodiak Island Bor	5685	5762	5955	469	
Valdez-Cordova	3634	3600	3641	601	
Interior Region	37611	38032	37221	5424	5
Fairbanks North Star Bor	30518	30872	30213	4507	4
Southeast Fairbanks	2998	3035	2958	371	
Yukon-Koyukuk	4095	4125	4050	546	
Northern Region	7501	7762	8032	801	
Kobuk	2371	2490	2495	274	
Nome	3179	3241	3350	383	
North Slope Borough	1951	2031	2187	144	
Southeast Region	31299	31307	31251	3627	
Haines Borough	997	986	1000	134	
Juneau Borough	12082	12237	12145	1137	
Ketchikan Gateway Bor	6619	6682	6646	727	
Pr. of Wales-Outer Ktn	2407	2391	2351	397	
Sitka Borough	3774	3777	3826	348	
Skagway-Yakutat-Angoon	1978	1875	1865	368	
Wrangell-Petersburg	3442	3359	3418	516	
Southwest Region	10018	10216	10002	858	
Aleutian Islands	2365	2419	2316	126	
Bethel	3915	4028	3969	362	
Bristol Bay Borough	401	407	389	45	
Dillingham	1745	1768	1719	166	
Wade Hampton	1592	1594	1609	159	

P/ Preliminary R/ Revised 1985 Benchmark

Federal guidelines require the use of unrounded labor force data
formulas used to allocate federal funds. Comparisons between diffe
by the Alaska Department of Labor, because Alaska's CPS samp
The sampling errors are random in nature: meaning that the unemp
as they are low. The official definitions of unemployment, currentl
the four week period up to and including the week that includes th
ties have proportionately more of these discouraged workers.

n and Census Area

ployment		Rate			Employment		
R/		P/	R/		P/	R/	
86	12/85	12/86	11/86	12/85	12/86	11/86	12/85
38	25228	11.0	11.0	10.2	217419	219244	222767
29	11254	9.3	9.5	8.3	120075	120180	124264
40	8710	8.5	8.7	7.3	106201	106293	109906
89	2544	15.3	15.2	15.1	13874	13887	14358
31	3750	15.3	15.8	14.4	21625	22025	22221
71	2631	17.5	18.9	16.1	13376	13623	13744
50	596	8.2	7.8	10.0	5216	5312	5359
10	523	16.5	14.2	14.4	3033	3090	3118
07	4771	14.4	14.0	12.8	32187	32725	32450
27	3990	14.8	14.3	13.2	26011	26445	26223
64	309	12.4	12.0	10.4	2627	2671	2649
16	472	13.3	12.5	11.7	3549	3609	3578
26	803	10.7	10.6	10.0	6700	6936	7229
20	233	11.6	12.9	9.3	2097	2170	2262
45	332	12.0	10.6	9.9	2796	2896	3018
61	238	7.4	7.9	10.9	1807	1870	1949
358	3764	11.6	10.7	~~12.0~~	27672	27949	27487
14	143	13.4	11.6	14.3	863	872	857
83	1273	9.4	9.7	10.5	10945	11054	10872
731	794	11.0	10.9	11.9	5892	5951	5852
361	354	16.5	15.1	15.1	2010	2030	1997
317	423	9.2	8.4	11.1	3426	3460	3403
349	266	18.6	13.3	14.3	1610	1626	1599
403	511	15.0	12.0	15.0	2926	2956	2907
787	886	8.6	7.7	8.9	9160	9429	9116
115	88	5.3	4.8	3.8	2239	2304	2228
371	433	9.2	9.2	10.9	3553	3657	3536
41	35	11.2	10.1	9.0	356	366	354
142	147	9.5	8.0	8.6	1579	1626	1572
118	183	10.0	7.4	11.4	1433	1476	1426

djusted to be consistent with the Current Population Survey (CPS) in
ent time periods are not as meaningful as other time series published
size is inadequate to accurately indicate monthly changes in level.
yment rates, in any given month, are as likely to be high as frequently
in place, exclude anyone who has made no attempt to find work in
twelfth of each month. Most economists feel that Alaska's rural locali-

Figure 1

Alaska Wellhead Oil Prices and State Revenues (1986 dollars)

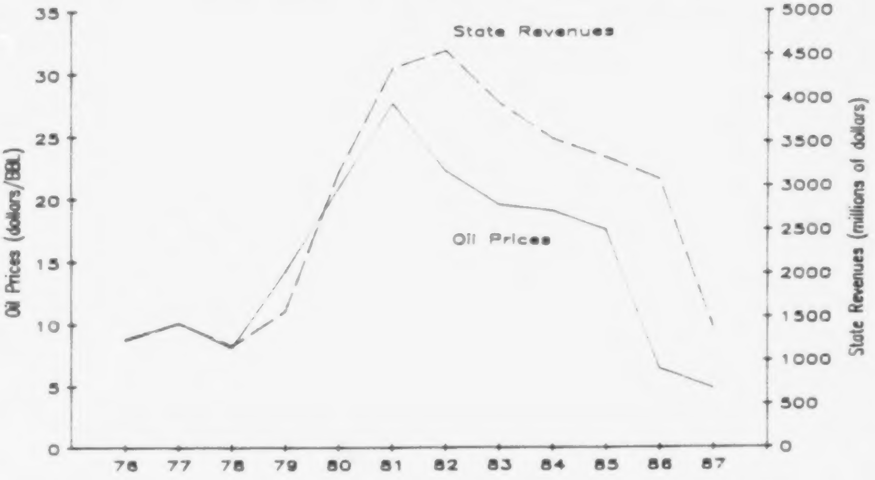


Figure 2

Change in Anchorage Employment and State Revenues (1986 dollars)

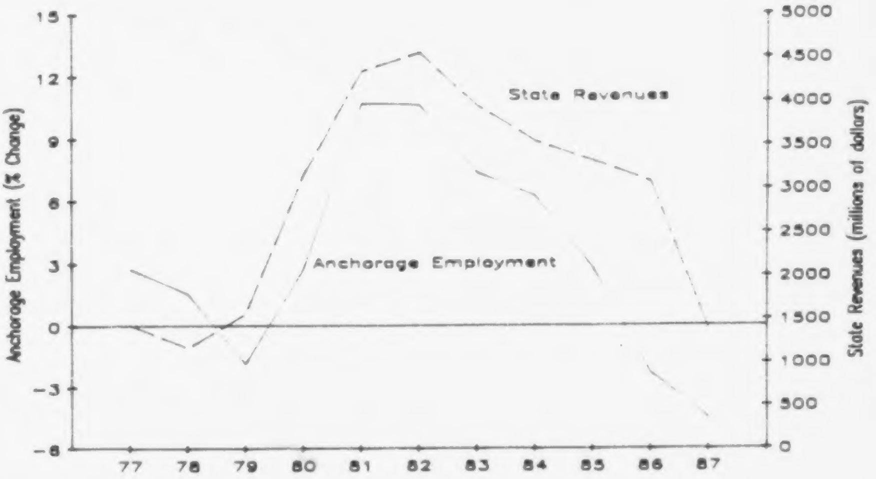
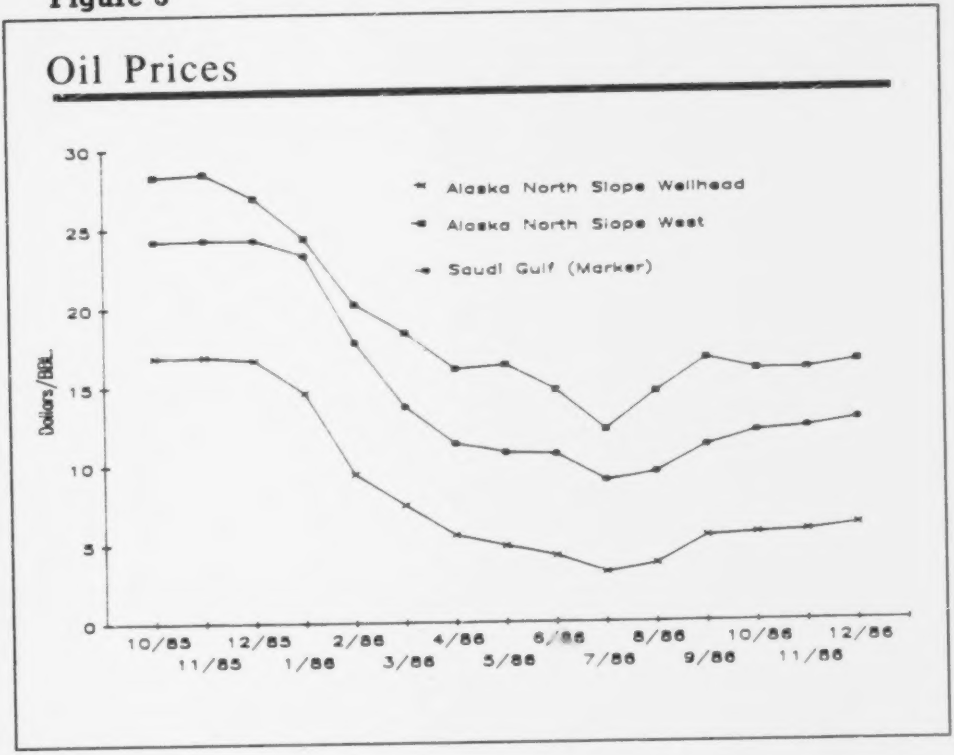


Figure 3



Oil Prices

(1986 dollars) 1979 state revenues were 13% higher. What will these revenue figures mean to Anchorage employment levels?

The level of economic activity or employment that can be supported by the Fiscal Year 1987 or Fiscal Year 1988 current estimated revenues is no greater than during calendar year 1980. In Anchorage in 1980, state government employment was 5,000 and total employment averaged 80,000 for the year, while in 1986 Anchorage had 7,100 state employees and total employment was above 112,000. For employment to fall to 1980 levels a loss of over 32,000 jobs (a 29% decline) would have to occur.

If world oil prices stay above $19 a barrel the outlook for 1987 is more optimistic. Depending upon the level and mix of state spending, Anchorage may see the end of the economic slide in mid 1987. But then again July 1987 brings another fiscal year which could initiate another round of employment declines throughout the economy.

This decline may seem extreme, and there are reasons to believe that

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/	r/		Changes From:	
	12/86	11/86	12/85	11/86	12/85
Nonag. Wage & Salary	107750	109150	114300	-1400	-6550
Mining	3350	3450	4000	-100	-650
Construction	5750	6500	7300	-750	-1550
Manufacturing	2450	2550	2600	-100	-150
Food & Kindred Prod.	500	550	500	-50	0
Other Mfg.	1950	2000	2100	-50	-150
Trans. Comm. & Utilities	9600	10000	9650	-400	-50
Trucking & Whseing.	1200	1200	1200	0	0
Water Transportation	250	350	300	-100	-50
Air Transportation	3850	4000	3800	-150	50
Other Trans. Comm. & Utilities	4300	4450	4350	-150	-50
Trade	26950	27050	28950	-100	-2000
Wholesale	6050	6050	6500	0	-450
Retail	20900	21000	22450	-100	-1550
Gen. Merchandise	2100	2050	2250	50	-150
Food Stores	3150	3100	3300	50	-150
Eating & Drinking Pl.	8100	8350	8350	-250	-250
Other Retail Trade	7550	7500	8550	50	-1000
Finance-Ins. & R.E.	8200	8200	8550	0	-350
Services & Misc.	25100	25050	26400	50	-1300
Government	26350	26350	26850	0	-500
Federal	10050	10000	9850	50	200
State	7050	7150	7450	-100	-400
Local	9250	9200	9550	50	-300

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/	r/		Changes From:	
	12/86	11/86	12/85	11/86	12/85
Nonag. Wage & Salary	114950	116450	122300	-1500	-7350
Mining	3400	3450	4000	-50	-600
Construction	6150	7000	7950	-850	-1800
Manufacturing	2550	2600	2700	-50	-150
Trans. Comm. & Utilities	10350	10650	10350	-300	0
Trade	28800	28850	31000	-50	-2200
Finance-Ins. & R.E.	8700	8700	9050	0	-350
Services & Misc.	26250	26300	27750	-50	-1500
Government	28750	28900	29500	-150	-750

employment will not fall that much, particularly if the oil prices predicted by the Department of Revenue are low. Other basic industries would not disappear but would continue to stimulate the development of the economy. In addition, the infrastructure developed and the expansion and diversification of the support industries that took place between 1980 and 1986 would prevent contraction to the pre-1980 levels.[3] Also, revenue levels do not necessarily reflect state spending levels.

/1 *The Alaska Economy: Where We Are and How We Got There*, Institute of Social and Economic Research, Working Paper 85.8, October 1985.(Similar comparisons can be made for Anchorage as were made in this paper).

/2 Note that the state revenue figures are on the state fiscal year timetable while the oil price and employment data are based on the calendar year. Since the state fiscal year begins in July, there is actually a six month overlap of the oil price and employment figures and the state revenue figures. For example, employment levels beyond July 1986 were impacted by Fiscal Year 1987 revenues which began in July 1986.

/3 *The Impact of the Collapse of the World Oil Market on the Alaska Economy*, Institute of Social and Economic Research, Working Paper 86.8, October 1986.

Fairbanks/Interior

By Neal Fried

Wages Falling Faster Than Employment

In 1985 $844 million in wages and salaries were generated in the Fairbanks' economy—$330 million more than in 1980. Recently, wages and salaries fell as a result of the contraction of the economy. When jobs are lost there is usually a corresponding loss of wages in a community. In this case the loss in wages are greater than the loss in employment because the high wage industries are losing jobs faster than low paying industries.

Because wages may be dramatically different between industries, an equal loss of jobs in two different industries have very different impacts on the economy. It is for this reason that during a contraction in an economy it is not only important to look at the number of jobs being lost but also the kinds of jobs being lost. For example for every job lost in construction in Fairbanks there is a loss of approximately $45,600 in wages annually to the economy compared to approximately $18,400 for every job lost in retail trade (based on 1985 data).

In 1985 the construction industry's total payroll was $142 million compared to a trade industry payroll of $113 million, in spite of the fact that trade employment was almost twice as large as construction employment. The difference in wages can be attributed to three factors: 1) productivity of the industries, 2) use of part-time workers, and 3) use of semi-skilled or un-skilled labor.

Construction's larger payroll is partially offset because a large percentage of these wages leak out of Fairbanks' economy. According to the Alaska Department of Labor's study *Nonresidents Working in Alaska* in 1985, 18.4% of Fairbanks' construction wages were earned by nonresidents compared to 13.1% in trade in 1984. But even after adjustments are made for nonresident earnings, construction industry wages and salaries are more important than that of the trade industry. On a per capita job basis the difference remains substantial.

During the first 6 months of 1986 employment in Fairbanks fell 2.9% and wages fell 7%. Wages fell more rapidly than employment because the construction industry's employment nosedived in 1986. Employment in this industry fell 48% and wages 60%. Wages and employment also fell in the transportation, communication and utilities, and trade industries, but by much smaller amounts. By the end of 1986 other industries joined the wage losers in Fairbanks.

Fairbanks North Star Borough
Nonagricultural Employment and Payroll
First Half 1985 Compared to First Half 1986

	1985 6 Month Average Employment	1986 6 Month Average Employment
Total	28,013	27,211
Mining	166	183
Construction	2,670	1,392
Manufacturing	540	559
Trans. Comm. & Utilities	2,791	2,600
Trade	5,927	5,807
Wholesale	995	925
Retail	4,933	4,882
Finance-Ins. & R.E.	1,018	1,119
Services	5,397	5,769
Miscellaneous	139	133
Government	9,368	9,650
Federal	2,663	2,859
State	4,014	4,004
Local	2,692	2,788

The loss of wages will continue to ripple through the Fairbanks economy. Though construction employment will probably continue to fall in 1987, its declines will likely be proportionally smaller than most other industries. State and local government wages could potentially replace construction as the big wage loser. Presently it is unknown what losses state and local government might sustain in 1987, but given almost any scenario it appears the losses will be larger than in 1986. In 1985 the annual average wage in state government was $32,724 and $38,118 in local government.

The loss of wages to nonresident government employees is the smallest of all of the industries—6% and 7% respectively. Because their wages are above the average and leakages are small, a loss of jobs in these industries, like construction, will have a proportionally larger impact on Fairbanks' total wage picture than the average job would.

1985-1986 Percent Change	1985 6 Month Total Payroll	1986 6 Month Total Payroll	1985-1986 Percent Change
-2.9	406,441,463	377,787,555	-7.0
10.3	3,937,783	5,148,344	30.7
-47.9	62,605,317	24,929,931	-60.2
3.6	8,043,014	8,623,620	7.2
-6.8	56,666,587	54,316,400	-4.1
-2.0	52,975,985	51,403,182	-3.0
-7.0	13,892,345	12,813,030	-7.8
-1.0	39,083,640	38,590,152	-1.3
10.0	13,077,562	13,836,811	5.8
6.9	56,416,670	57,948,625	2.7
-4.7	1,225,949	1,025,668	-16.3
3.0	151,492,596	160,554,974	6.0
7.4	33,776,893	37,101,538	9.8
-0.2	63,916,585	68,047,236	6.5
3.6	53,799,127	55,406,200	3.0

Presently it is difficult to project whether wages will continue to fall faster than employment. It will depend on the mix of employment declines. The state budget will be a key element in what eventually happens in Fairbanks' wage picture.

Current Trends

Fairbanks' unemployment rate climbed from 13.3% in November to 14.8% in December. December's unemployment rate was 1.6 points above year-ago levels and the number of unemployed was 500 higher. More significant is the fact that Fairbanks' unemployment rate of 14.6 % was the highest recorded since 1978—a year that felt the fallout from the completion of construction of the oil pipeline. The 4,700 unemployed in 1986 set an all time record for Fairbanks. The year to come closest to this record was 1984, when the number of unemployed reached 4,029.

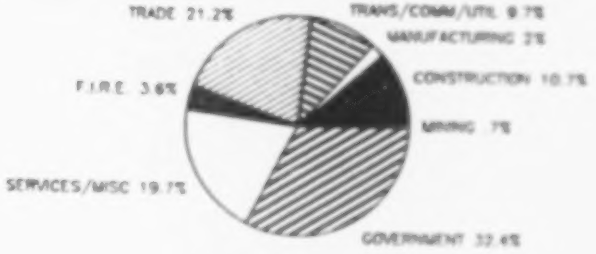
Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

				Changes From:	
	p/	r/			
	12/86	11/86	12/85	11/86	12/85
Nonag. Wage & Salary	26600	27600	27950	-1000	-1350
Mining	150	150	150	0	0
Construction	1500	1900	2000	-400	-500
Manufacturing	550	600	550	-50	0
Trans. Comm. & Utilities	2600	2650	2700	-50	-100
Trucking & Whseing.	400	400	450	0	-50
Air Transportation	900	900	850	0	50
Other Trans. Comm. & Utilities	1300	1350	1400	-50	-100
Trade	5650	5850	6050	-200	-400
Wholesale	850	900	1000	-50	-150
Retail	4800	4950	5050	-150	-250
Gen. Mer. & Apparel	650	600	600	50	50
Food Stores	700	750	750	-50	-50
Other Retail Trade	3450	3600	3700	-150	-250
Finance-Ins. & R.E.	1050	1050	1050	0	0
Services & Misc	5600	5700	5700	-100	-100
Government	9500	9700	9750	-200	-250
Federal	2900	2850	2650	50	250
State	3850	4100	4200	-250	-350
Local	2750	2750	2900	0	-150

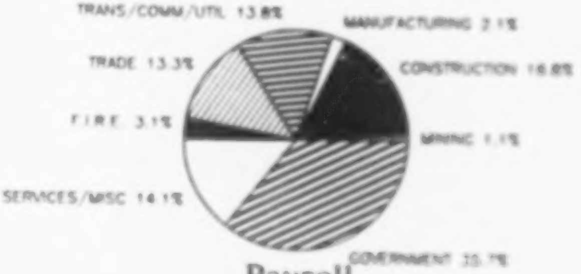
Nonagricultural Wage and Salary Employment
By Place of Work
Interior

				Changes From:	
	p/	r/			
	12/86	11/86	12/85	11/86	12/85
Nonag. Wage & Salary	30550	31450	31750	-900	-1200
Mining	300	300	300	0	0
Construction	1550	2000	2100	-450	-550
Manufacturing	600	600	550	0	50
Trans. Comm. & Utilities	2900	2900	3050	0	-150
Trade	6200	6300	6450	-100	-250
Finance-Ins. & R.E.	1100	1100	1100	0	0
Services & Misc.	5950	6100	5950	-150	0
Government	11950	12150	12250	-200	-300

Employment and Payroll by Industry
Fairbanks, 1985



Employment



Payroll

Gulf Coast

By Neal Fried

Kenai-Soldotna: The Central Peninsula
Employment Falls Quickly

The Central Peninsula has one of the most diverse economies in the state. The Peninsula has an active commercial fishery, an oil and gas industry, a large manufacturing and refining sector (based on its hydrocarbon resources), and a strong tourism industry. Regardless of this diversity, the decline in oil revenues is being felt no less on the Central Peninsula than in most other urban areas of the state.

Nineteen-eighty-six brought an end to five years of strong growth on the Central Peninsula. From 1980 to 1985 employment grew by 8.8% per year. In 1986 a reversal of this trend occurred. Employment fell by 1.8% for the first six months of 1986 and probably fell more during the second half of the year. Such a sudden change of events was not expected in 1986 with such a robust economy in 1985.

Like the rest of the state, the Central Peninsula got caught up in the oil revenue boom of the 1980s. Employment in most industries soared from 1980 to 1985. Central Peninsula wage and salary employment grew by almost 3,000 jobs, or 52%. The revenues that supported this boom are now drying up which means the present size of the labor force is too large for the available jobs.

This is because most of the growth which did take place over the past five years came as a result of the state expenditures and not from an expansion in the area's basic industries. Some growth did occur in the tourist industry but to what extent is difficult to measure because no reliable statistics exist.

The lion's share of growth from 1980 to 1985 was in construction; retail trade; services; finance, insurance and real estate; and government. And now all but two of these industries are experiencing losses with the remaining two eventually joining them.

The industry hardest hit has been construction. The Central Peninsula's employment in the construction industry fell by 41% during the first half of 1986. Retail trade's losses came because of income declines and economic uncertainty. Retail sales on the Central Peninsula declined 11% for the first half of 1986.

Employment in the service industry has remained surprisingly

Table 1
Kenai-Soldotna
Nonagricultural Employment

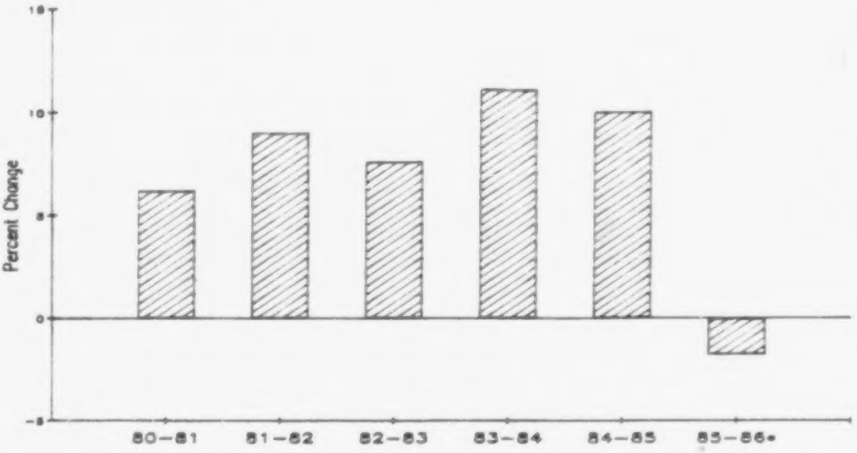
	1985 January-June Average	1986 January-June Average	% change 6-mo.1985-6-mo. 1986
Total	8120	7972	-1.8%
Mining	681	911	33.9%
Construction	956	566	-40.8%
Manufacturing	736	839	14.0%
Food and Kindred Prod	196	306	56.5%
Trans. Comm. & Utilities	635	474	-25.4%
Trade	1792	1611	-10.1%
Wholesale	329	313	-4.7%
Retail	1464	1298	-11.3%
Finance-Ins. & R.E.	266	295	11.1%
Services & Misc.	1172	1366	16.6%
Government	1885	1910	1.4%
Federal	107	106	-0.9%
State	551	581	5.5%
Local	1228	1224	-0.3%

Table 2
Central Peninsula
Nonagricultural Employment
1980-1985

	1980	1981	1982	1983	1984	1985
Total	5637	5986	6523	7019	7799	8581
Mining	733	718	722	552	620	735
Construction	514	608	675	790	978	1029
Manufacturing	1024	856	924	922	891	1068
Food and Kindred Prod.	536	368	424	403	358	515
Trans. Comm. & Utilities	458	634	632	629	584	602
Trade	911	1017	1083	1262	1631	1823
Wholesale	236	311	283	289	343	325
Retail	675	706	800	973	1288	1499
Finance-Ins. & R.E.	155	177	206	231	265	263
Services & Misc.	688	758	911	1121	1153	1258
Government	1154	1218	1370	1512	1913	1803
Federal	76	74	77	92	100	107
State	323	365	402	456	524	561
Local	755	779	891	964	1053	1134

resilient, partially because of its diverse makeup, but eventually it too will be adversely affected by falling employment and income. According to Table 1, only the local component of government has experienced losses. According to more recent data state government employment on the Peninsula has also fallen. Thus far the declines in government have been small, but much larger declines loom ahead.

Percent Change in Kenai/Soldotna Employment 1980 to 1986



*Based on first 6 months of each year.

The mining (primarily the oil industry) figures in Table 1 may be somewhat misleading by indicating strong growth in 1986. During the first half of 1986 work on Marathon Oil's new gas platform did boost employment. An accounting change in our records also had the effect of pushing mining figures up. One firm, previously counted only in the statewide figures, is now being counted on the Peninsula. Statistics are not available for the second half of 1986 yet, but plummeting oil prices probably caused employment in this industry to fall—particularly oil service companies operating on the North Slope.

Though fish processing employment indicates declines, the salmon season during the second half of the year was good in Cook Inlet. Prices were high, boosting fishermen's incomes. The fishing industry's picture continues to be good and therefore may be one of the few bright spots on the Central Peninsula.

Tourism also performed relatively well in 1986 because Americans choose domestic travel over foreign travel. What will happen to tourism on the Central Peninsula in 1987 is less clear. Alaska is becoming an increasingly popular spot for out-of-state tourists so this seg-

Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/	r/		Changes From:	
	12/86	11/86	12/85	11/86	12/85
Nonag. Wage & Salary	18550	19100	19600	-550	-1050
Mining	850	850	800	0	50
Construction	1100	1300	1850	-200	-750
Manufacturing	2200	2400	1950	-200	250
Food & Kindred Prod.	1550	1750	1300	-200	250
All Other Mfg.	650	650	650	0	0
Trans. Comm. & Utilities	1650	1600	1750	50	-100
Trade	3550	3550	3850	0	-300
Wholesale	450	450	500	0	-50
Retail	3100	3100	3350	0	-250
Finance-Ins. & R.E.	600	650	650	-50	-50
Services & Misc.	3150	3250	3150	-100	0
Government	5450	5500	5600	-50	-150
Federal	550	550	550	0	0
State	1450	1500	1550	-50	-100
Local	3450	3450	3500	0	-50

ment of the trade should continue to grow. The Central Peninsula, however, is also a popular recreation area for Anchorage and other Alaskan residents and a deteriorating economy in Anchorage and elsewhere in the state may mean fewer Alaskan tourists on the Peninsula this year.

The trend of employment declines which began in 1986 will continue into 1987. Industries that began to lose employment in 1986 will continue to do so in 1987 while industries which avoided declines in 1986 will join the losers in 1987. While 1986 was a relatively tough year for the Central Peninsula's economy, 1987 will bring little relief.

Current Trends

Unemployment rates for two of the three areas in the Gulf Coast region increased in December. Valdez-Cordova climbed from 14.2% in November to 16.2% in December and Kodiak climbed from 7.8% to 8.2%. Valdez-Cordova's unemployment rate for December was 2.1 points above year-ago levels which points toward a continued sluggish economy in the area.

Kodiak's unemployment picture over the year actually improved--1.8

points below 1985's level. A busy bottom fishing year may be partially responsible for this improved rate.

The Kenai Peninsula's unemployment rate fell in December, possibly as a result of the Christmas season. The annual unemployment rate of 16.9% for the Peninsula, however, set a record high. The year that came closest to that was 1978, when the Kenai Peninsula's unemployment rate reached 15.4%., a result of the completion of the construction of the Union Oil Collier plant and the Trans-Alaskan Pipeline. This year's record rate was a result of overbuilding in residential and commercial construction and falling oil revenues.

Southeast Alaska

By John Boucher

Southeast Unemployment Higher in 1986

Preliminary annual average unemployment figures for Southeast Alaska place the 1986 unemployment rate at 10.4 percent. This represented a two-tenths of a percentage point increase from the 1985 rate of 10.2 percent, but it was still a significant improvement over the 1984 record level of 12.5 percent unemployed.

While on balance the Southeast region's unemployment was slightly higher in 1986 than in 1985, some census areas had lower unemployment rates in 1986. Of the seven census areas in the Southeast region, four had lower unemployment rates than in 1985. Sitka's unemployment rate improved the most in 1986, falling to 8.5 percent from 9.6 in 1985. The next largest improvement was in the Wrangell-Petersburg census area, where the unemployment rate dropped from 11.2 percent in 1985 to 10.5 percent in 1986. The Skagway-Yakutat-Angoon census areas unemployment rate fell by three-tenths of a percentage point, 13.8 to 13.5, and the Haines Borough dropped one-tenth of a percentage point, 11.6 to 11.5.

While those four areas experienced lower unemployment over the year the remaining three areas had higher unemployment in 1986 than in 1985. Juneau and Prince of Wales-Outer Ketchikan both had eight-tenths of a percentage point increases in their unemployment rate during the year. These were the two largest increases in unemployment rates for 1986. Juneau's unemployment rate went from 8.9 percent to 9.7 percent while Prince of Wales-Outer Ketchikan unemployment rate increased to 14.4 percent from 13.6 percent. In Ketchikan the unemployment rate was two-tenths of a percentage point higher in 1986 than 1985.

Labor Force Trends for 1987

The single most significant factor in predicting the direction that the Southeast Alaska labor force will take during the next year, will be the effect that falling state oil revenues have on the economy. If budget cuts cause large losses in government employment at either the state or local level, the Southeast Alaska unemployment picture will get considerably worse. Gradual declines in employment will also raise the unemployment rate but at a slower rate as out-migration of the unemployed will most likely reduce the labor force below what it otherwise would be.

Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

	p/	r/		Changes From:	
	12/86	**11/86**	**12/85**	**11/86**	**12/85**
Nonag. Wage & Salary	26800	27400	27400	-600	-600
Construction	950	1100	1350	-150	-400
Manufacturing	2750	2950	2100	-200	650
Food & Kindred Prod.	400	450	400	-50	0
Lumber & Paper Prod.	2150	2300	1500	-150	650
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	1900	1900	1850	0	50
Trade	4350	4350	4400	0	-50
Wholesale	350	350	350	0	0
Retail	4000	4000	4050	0	-50
Finance-Ins. & R.E.	1100	1100	1100	0	0
Mining, Services & Misc.	4250	4300	4350	-50	-100
Government	11500	11700	12250	-200	-750
Federal	2050	2100	2050	-50	0
State	4900	5000	5350	-100	-450
Local	4550	4600	4850	-50	-300

The current bright spot on the Southeast economic landscape is the manufacturing industry. The improvement in this sector during the past two years has been the most important factor in the drop in unemployment and the revitalization of some Southeast Alaska communities. If the trend toward a rebound in manufacturing continues, it would help to offset the losses that are almost certain to befall the government sector. In short the outlook for 1987 in Southeast Alaska is for increasing unemployment, the extent to which will be dependant upon the fortunes of government and manufacturing employment.

Southeast Alaska
Annual Average Unemployment Rates
1982-1986

	1986	**1985**	**1984**	**1983**	**1982**
Southeast Region	10.4	10.2	12.5	12.2	11.5
Haines Borough	11.5	11.6	13.3	16.1	14.4
Juneau Borough	9.7	8.9	9.6	9.2	8.3
Ketchikan Gateway Bor.	10.2	10.0	15.0	11.9	12.4
Prince of Wales- Outer Ketchikan	14.4	13.6	15.6	18.2	16.9
Sitka Borough	8.6	9.6	10.1	10.7	12.3
Skagway-Yakutat-Angoon	13.5	13.8	15.2	20.1	13.6
Wrangell-Petersburg	10.5	11.2	16.5	14.7	13.6

S0320-1A-
3/31/87

MARCH 1987
ALASKA ECONOMIC TRENDS

Alaska Department of Labor **Steve Cowper, Governor, State of Alaska**

287.44	$1315.09	[illegible]	1192.46
930.63	909.09	[illegible]	989.26
~~[illegible]~~ 516.43	503.69	[illegible]	~~[illegible]~~ 512.59
275.89	303.83	[illegible]	323.61
606.12	[illegible]	609.51	[illegible]
538.61	[illegible]	[illegible]	557.98
384.95	[illegible]	381.42	391.78
482.06	~~[illegible]~~ 509.29	504.38	531.22
350.72	346.97	336.22	345.10
394.59	432.95	419.85	459.46
24.20	25.16	~~[illegible]~~ 20.57	23.52
20.62	24.05	24.05	23.61
14.84	13.29	13.25	13.26

Revised Employment, Hours and Earnings, and Labor Force Data

Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 12/86	R/ 11/86	12/85	P/ 12/86	R/ 11/86	12/85	P/ 12/86	R/ 11/86	12/85
Mining	1293.04	1206.56	1209.74	55.4	52.3	51.5	23.34	23.07	23.49
Construction	927.09	886.12	957.53	39.3	37.5	39.6	23.59	23.63	24.18
Manufacturing	519.30	483.27	492.69	38.1	36.2	37.1	13.63	13.35	13.28
Food & Kindred Prod	262.74	218.68	238.95	29.0	28.0	29.5	9.06	7.81	8.10
Lumber & Paper Prod	702.47	675.51	583.40	47.4	44.5	43.7	14.82	15.18	13.35
Trans., Comm. & Utilities	538.78	548.80	576.01	35.1	34.8	36.9	15.35	15.77	15.61
Trade	370.51	364.10	380.29	33.5	33.1	33.3	11.06	11.00	11.42
Wholesale	539.09	509.68	513.46	38.7	38.7	37.1	13.93	13.17	13.84
Retail	316.41	315.74	334.72	31.8	31.2	32.0	9.95	10.12	10.46
Finance-Ins. & R.E	411.47	420.00	427.33	34.9	35.0	35.7	11.79	12.00	11.97

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

ALASKA ECONOMIC TRENDS
ALASKA DEPARTMENT OF LABOR
EMPLOYMENT SECURITY DIVISION
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Alaska Economic Trends

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Revised Employment, Hours and Earnings, and Labor Force Data

By Edward Eboch

Each February, nonagricultural wage and salary employment estimates are revised for the preceding eighteen months by a procedure referred to as **benchmarking**. The revised employment estimates for 1986 have just been completed.

The monthly estimates of employment published in *Alaska Economic Trends* are based on a sample of employers. The most comprehensive count of nonagricultural wage and salary employment is based on unemployment insurance tax reports, commonly referred to as ES-202 data, however, there is a six to nine month lag in collection and publication of this information.

Monthly employment is therefore estimated from a sample of firms willing to participate in the Current Employment Statistics (CES) program. The willingness of firms to provide data makes it possible to produce reliable estimates as to direction and magnitude of movements of nonagricultural wage and salary employment on a timely basis.

Revised estimates have been completed through December 1986. These employment numbers incorporate ES-202 data through June 1986. The revised employment estimates suggest that the downturn started in late fall 1985, before the sudden collapse of the price of oil. By late 1985 the economy was unable to maintain the lofty year to year gains in employment observed early in 1985.

By March, 1986 employment fell below the previous years level for the first time since the pipeline years. The depth of the problem was most evident in July, 1986 as employment fell, bucking the normal seasonal trend. While the annual average drop in employment from 1985 to 1986 was less than 4%, employment was down nearly 5% in November and December from the previous year. (For additional analysis of the past year see the Alaska article in this issue, "The Year in Review".)

Hours and Earnings Statistics

The hours and earnings estimates are also based on the data from employers. The estimates are then adjusted to reflect the level of employment. When the employment data are benchmarked, the hours and earnings are reviewed to see if additional sample or changes in employment levels from earlier estimates have changed the estimates for hours and earnings.

As is usually the case, hours and earnings estimates have changed, primarily as a result of additional firms in our sample, but also because benchmarked estimates of employment have also changed. Note that the ES-202 data does not lend itself to estimates of average weekly hours and earnings, important indicators to the direction of the economy.

Increasing average weekly hours usually indicate an expanding economy, leading to a future increase in employment, whereas declining average weekly hours usually indicate that the economy is contracting and that employment will decline.

The benchmarked hours and earnings data suggest that Alaska's economy will continue to contract, and that employment will continue to decline.

Labor Force Statistics

Labor force statistics are also benchmarked in January using the new nonagricultural wage and salary numbers as well as other updated data. The employment numbers in the labor force table differ from the nonagricultural wage and salary numbers because of the methodology used in making estimates. Nonagricultural wage and salary employment is considered the better indicator of changes in employment whereas the labor force data is considered the better measure of job prospects and the current hardships of people looking for work.

Unemployment can increase in a rapidly expanding economy as well as a rapidly declining economy. This occurred in Alaska in the 1980s. When the economy was expanding, people rushed to Alaska, increasing the number of unemployed until they found jobs. The effect was a rapidly expanding labor force, increasing numbers of unemployed, and increasing numbers of employed. Now, as the number of job holders declines rapidly, people leaving Alaska reduce the labor force so that the increase in unemployment understates the severity of the current recession.

There are several technical changes in the reported labor force statistics. The revised estimates reflect the incorporation of a new method of estimating total employment at the census area level and a procedural change in how the estimates for the Anchorage and Matsu Borough are developed.

These changes are especially important when looking at the data over time. In the past the distribution of employment was based on the census population data as a percent of the region's population and the participation rate of residents in the labor force was ignored. The employment data is now distributed on the basis of this population data but takes into account the labor force participation in the census areas. The effect is to increase the unemployment rates of the less populated census areas while the unemployment rate of the more populated census areas drop slightly.

The second significant change in the methodology is the calculation of the labor force statistics for the Anchorage and Matanuska-Susitna boroughs. Previously, the estimates were made at the region level and then distributed to the boroughs based on population, unemployment claims data and other factors. The labor force numbers of the two census areas are now calculated separately and then summed to the region level. As a result, the unemployment rate in Matanuska Borough is now estimated to be much higher than previously estimated.

The labor force data has been benchmarked for 1985 and 1986 using the new procedures. Comparisons between the methods can be made for the areas using 1985 data which is available using both procedures. To get a continuous series for pre-1985, earlier data will have to be adjusted using the information available from the 1985 comparisons.

Finally, the new Northwest Arctic Borough replaces the Kobuk Census Area. Although the change is primarily in name only, the area the new borough represents is slightly larger. The difference does not change the numbers in the labor force statistics because the additional area encompassed by the new borough had little or no employment before this change. The significance of this change is that as the Red Dog mine begins activity that employment will now fall into the Northwest Arctic Borough (Kobuk) instead of the North Slope Borough.

Nonagricultural Wage and Salary Employment
By Place of Work
ALASKA

1986

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Nonag. Wage & Salary	212900	214500	215700	218200	224600	228100	237900	236400	230600	220500	214700	211400	222100
Mining	9700	9900	9700	8700	8500	8600	9000	9000	9100	8500	8400	8300	9000
Construction	10900	10600	10600	11200	13000	14900	15800	16300	16400	15300	12600	11200	13200
Manufacturing	8100	8700	9200	10800	13100	14600	21600	20800	15100	10300	8400	7900	12400
Food & Kindred Prod.	3200	3700	3900	5000	7100	8200	15200	14400	8800	4100	2700	2700	6600
Lumber & Paper Prod.	1700	1900	2200	2700	2800	3100	3000	3000	3000	2900	2600	2200	2600
All Other Mfg.	3200	3100	3100	3100	3200	3300	3400	3400	3300	3300	3100	3000	3200
Trans. Comm. & Utilities	17500	17200	17000	17600	18200	19300	19500	19600	19500	18200	17700	17300	18200
Trucking & Whseing.	2200	2100	2100	2300	2400	2500	2400	2500	2300	2200	2100	2000	2300
Water Transportation	1000	1000	1000	1200	1200	1500	1600	1800	1600	1300	1100	1000	1300
Air Transportation	5400	5200	5100	5200	5400	5600	5800	5700	5500	5300	5300	5300	5400
Other Trans. Comm. & Utilities	8900	8900	8800	8900	9200	9700	9700	9600	10100	9400	9200	9000	9300
Trade	43200	42600	42900	43200	44700	46100	46200	46700	45600	43900	43300	43700	44300
Wholesale	8300	8200	8200	8200	8300	8400	8500	8200	7900	7600	7600	7400	8100
Retail	34900	34400	34700	35000	36400	37700	37700	38500	37700	36300	35700	36300	36300
Gen. Mer. & Apparel	5200	4900	4900	4900	5100	5400	5500	5600	5400	5500	5600	5800	5300
Food Stores	5600	5600	5700	5800	5900	6100	6300	6200	6200	6000	6000	6200	6000
Eating & Drinking Pl.	12600	12600	12800	13000	13700	14200	14000	14800	14400	13300	12800	12700	13400
Other Retail Trade	11500	11300	11300	11300	11700	12000	11900	11900	11700	11500	11300	11600	11600
Finance-Ins. & R.E.	12400	12500	12600	12700	12800	13000	13000	12900	12600	12600	12400	12300	12700
Services & Misc.	42900	43500	43900	43500	44100	45500	46700	46300	44800	43300	42900	42800	44200
Government	68200	69500	69800	70500	70200	66100	66100	64800	67500	68400	69000	67900	68200
Federal	17400	17500	17600	17700	18000	18400	18500	18400	18400	18400	18500	18600	18100
State	19700	20700	21100	21300	20900	19800	20600	19200	20000	20000	19700	19100	20200
Local	31100	31300	31100	31500	31300	27900	27000	27200	29100	30000	30800	30200	29900

Prepared in cooperation with U.S. Bureau of Labor Statistics.
Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.
Benchmark Date March 1986.

Nonagricultural Wage and Salary Employment
By Place of Work
ANCHORAGE

1986

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Nonag. Wage & Salary	107850	108400	108200	108800	109900	111300	112400	111700	111150	108950	106600	105700	109200
Mining	4000	4150	4100	3800	3550	3600	3550	3450	3400	3250	3200	3150	3600
Construction	6250	6350	6200	6500	7150	8150	8500	8750	8750	8250	6750	5850	7300
Manufacturing	2300	2300	2250	2400	2600	2850	3650	3500	3000	2350	2150	2150	2600
Food & Kindred Prod.	400	400	400	600	750	1000	1700	1600	1100	500	400	400	800
Other Mfg.	1900	1900	1850	1800	1850	1850	1950	1900	1900	1850	1750	1750	1900
Trans. Comm. & Utilities	9100	9050	8900	9250	9500	9900	10050	10100	9900	9550	9250	9050	9500
Trucking & Whseing.	1300	1300	1250	1450	1500	1600	1650	1650	1500	1400	1350	1350	1400
Water Transportation	250	250	250	300	350	300	350	350	350	350	300	250	300
Air Transportation	3050	2950	2900	2900	2950	3050	3150	3150	3050	3050	3050	2950	3000
Other Trans. Comm. & Utilities	4500	4550	4500	4600	4700	4950	4900	4950	5000	4750	4550	4500	4700
Trade	26700	26200	26250	26150	26300	26700	26450	26550	26250	25900	25850	26250	26300
Wholesale	6400	6350	6350	6250	6250	6250	6300	6150	6000	5850	5800	5700	6100
Retail	20300	19850	19900	19900	20050	20450	20150	20400	20250	20050	20050	20550	20200
Gen. Merchandise	1900	1800	1800	1800	1800	1900	1850	1900	1900	1950	2050	2150	1900
Food Stores	2850	2850	2850	2900	2900	3050	3050	3050	3050	3000	3000	3150	3000
Eating & Drinking Pl.	8150	8000	8100	8050	8050	8150	8000	8100	8150	8000	7900	7850	8000
Other Retail Trade	7400	7200	7150	7150	7300	7350	7250	7350	7150	7100	7100	7400	7200
Finance-Ins. & R.E.	8300	8350	8450	8400	8450	8450	8250	8250	8150	8250	8050	8050	8300
Services & Misc.	24900	25200	25250	25050	25300	25750	26000	25500	25100	24600	24300	24400	25100
Government	26300	26800	26800	27250	27050	25900	25950	25600	26600	26800	27050	26800	26600
Federal	9900	9950	10000	10000	10000	10150	10350	10250	10400	10350	10400	10350	10200
State	7000	7550	7600	7700	7500	7050	7000	6800	7300	7350	7300	7150	7300
Local	9400	9300	9200	9550	9550	8700	8600	8550	8900	9100	9350	9300	9100

Nonagricultural Wage and Salary Employment
By Place of Work
ANCHORAGE-MATSU

1986

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Nonag. Wage & Salary	114750	115250	115200	115450	116750	118350	119350	118900	118350	115700	113200	112400	116100
Mining	4000	4150	4100	3800	3550	3600	3550	3500	3450	3250	3200	3150	3600
Construction	6600	6700	6600	6850	7550	8600	9000	9250	9250	8700	7100	6150	7700
Manufacturing	2400	2350	2350	2450	2650	2950	3750	3650	3100	2400	2250	2200	2700
Trans. Comm. & Utilities	9800	9700	9600	9900	10150	10450	10700	10750	10650	10250	9950	9750	10100
Trade	28250	27700	27800	27600	27850	28300	28050	28200	27800	27400	27350	27850	27800
Finance-Ins. & R.E.	8850	8900	9000	8950	8950	9000	8800	8800	8700	8750	8550	8600	8800
Services & Misc.	26200	26450	26500	26200	26500	27050	27350	26850	26400	25800	25550	25550	26400
Government	28650	29300	29250	29700	29550	28400	28150	27900	29000	29150	29250	29150	29000

Nonagricultural Wage and Salary Employment
By Place of Work
INTERIOR

1986

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Nonag. Wage & Salary	29950	30300	30450	31050	32500	33000	34200	33550	33750	32300	31100	30450	31900
Mining	250	200	200	200	250	250	250	300	300	250	250	250	200
Construction	1400	1150	1100	1200	1750	2250	2500	2550	2600	2350	1750	1600	1900
Manufacturing	550	550	550	550	600	650	700	700	700	650	600	600	600
Trans. Comm. & Utilities	2850	2800	2750	2850	3050	3250	3350	3300	3250	3000	2850	2900	3000
Trade	5750	5850	5850	6050	6600	6850	6800	6750	6750	6300	6200	6100	6300
Finance-Ins. & R.E.	1100	1150	1150	1150	1200	1200	1250	1200	1150	1150	1100	1100	1200
Services & Misc.	6200	6300	6400	6400	6400	6850	7100	7100	6800	6300	6150	6050	6500
Government	11850	12300	12450	12650	12650	11700	12250	11650	12200	12300	12200	11850	12200

Nonagricultural Wage and Salary Employment
By Place of Work
FAIRBANKS

1986

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Nonag. Wage & Salary	26300	26600	26850	27250	29150	29600	29350	28950	29300	28000	27100	26500	27750
Mining	100	100	100	100	100	100	100	100	150	100	100	100	100
Construction	1350	1100	1100	1150	1850	2000	2250	2300	2800	2250	1700	1550	1800
Manufacturing	550	550	550	550	600	650	700	650	650	650	600	600	600
Trans. Comm. & Utilities	2500	2500	2450	2550	2700	2950	3000	2950	2950	2700	2550	2550	2700
Trucking & Whseing	400	400	350	400	400	400	350	350	350	400	350	400	400
Air Transportation	900	900	900	900	950	1000	1050	1050	1000	950	900	900	1000
Other Trans. Comm. & Utilities	1200	1200	1200	1250	1350	1550	1600	1550	1550	1350	1300	1250	1400
Trade	5450	5500	5550	5700	6150	6400	6250	6300	6350	5800	5800	5750	5900
Wholesale	900	900	900	900	950	1000	1000	1000	950	950	950	900	950
Retail	4550	4600	4650	4800	5200	5400	5250	5300	5400	4850	4850	4850	5000
Gen. Mer. & Apparel	550	500	500	500	500	550	550	550	550	550	550	700	550
Food Stores	750	750	750	750	750	750	750	750	800	800	800	750	800
Other Retail Trade	3250	3350	3400	3550	3950	4100	3950	4000	4050	3500	3500	3400	3700
Finance-Ins. & R.E.	1050	1050	1100	1100	1150	1150	1150	1100	1100	1050	1050	1150	1100
Services & Misc.	5850	5950	6000	5850	5850	6200	6400	6400	6150	5700	5950	5850	6000
Government	9450	9850	10000	10050	9950	9150	8550	8450	9450	9850	9850	9300	9600
Federal	2700	2750	2750	2900	2950	3000	3000	3050	2950	2900	2900	2900	2900
State	3850	4200	4250	4250	4000	3450	2750	2850	3800	4150	4100	3800	3800
Local	2900	2900	3000	2900	3000	2700	2800	2550	2700	2750	2850	2600	2800

Alaska Microcomputer Occupational Information System (Micro-OIS)

What is Micro OIS?

Alaska Micro-OIS is a new microcomputer system designe
to give program planners and education administrators
quick, convenient, and effective means to access occup
tional information and produce reports. It is an interactiv
user friendly system run on an IBM compatible PC with a hard dis

Micro-OIS quickly and easily matches occupational demand data (cu
rent and projected employment), supply data (trained persons ava
able for work at an occupation), and supplemental analysis informatio
for specific and related occupations.

Micro-OIS was developed through a special grant provided by th
National Occupational Information Coordinating Committee (NOICC
The project was a joint effort by the Alaska Occupational Informatio
Coordinating Committee and the Alaska Department of Labor.

What Does Alaska Micro-OIS Contain?

The demand data are Occupational Employment Statistics (OES) cu
rent estimated and projected employment for more than 500 occupa
tions and the average annual openings resulting from industry grow
and replacement needs (retirement and death). Supply data includ
program completers from vocational and technical schools, univers
ty and community colleges, proprietary schools, and the Job Trai
ing Partnership Act (JTPA) program. Plans are to includ
unemployment insurance claimant data and separates from militar
service who will return to or stay in Alaska. Supplemental analys
data in the system are hourly wage rates, Job Service job applican
and job openings (filled and unfilled), and the ratio of applicants
openings.

What can Alaska Micro-OIS Do For Me?

Micro-OIS provides the capability of producing standard productio
reports of occupational demand, supply, and analysis. It also allow
users to develop specific criteria for selecting occupational data suc
as the number of projected job openings, current wage rate, and
a ratio range of Job Service job applicants to job openings. Occupa
tional demand and supply, and analysis data are related to o

another by occupational clusters. The clusters are groupings of education or training programs that have common curricula and occupational objectives which can be entered as an outcome of the training. Currently the system has about 100 occupational clusters.

A characteristic file allows users to select *Alaska Micro-OIS* occupational demand and supply data by occupational traits, such as general education developmental levels (reasoning, math, language), preparation time, physical demands, and environmental conditions. Micro-OIS currently delivers information for *Alaska, Anchorage Mat-Su* and Fairbanks. Long range plans include the addition of information for the six geographic regions.

How Much Does *Alaska Micro-OIS* Cost and Where Can I Get a Copy?

Micro-OIS is distributed free of charge to anyone who provides three diskettes to copy it on. No other software is required. The diskettes will be updated annually as new data are compiled.

To obtain Micro-OIS, send three 5 1/4 inch floppy diskettes to the address below.

If you have any questions about *Alaska Micro-OIS* or want to know more about it, please contact:

Sally Saddler, Coordinator
Alaska Occupational Information Coordinating Committee

OR

John Van Houten, Labor Economist

Alaska Department of Labor
Research and Analysis
PO Box 25501
Juneau, Alaska 99802-5501
(907) 465-4518

Nonagricultural Wage and Salary Employment
By Place of Work
SOUTHEAST ALASKA

1986

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Nonag. Wage & Salary	26050	26450	27350	28700	29800	31050	32250	32400	31400	28900	27450	26700	29000
Construction	850	800	900	1000	1200	1300	1400	1450	1450	1350	1150	950	1200
Manufacturing	2000	2350	2700	3500	3950	4300	5250	5700	4950	3700	3000	2550	3700
Food & Kindred Prod	300	400	450	800	1100	1200	2200	2650	2000	800	400	350	1100
Lumber & Paper Prod	1500	1750	2050	2500	2650	2900	2850	2850	2750	2700	2400	2000	2400
All Other Mfg	200	200	200	200	200	200	200	200	200	200	200	200	200
Trans. Comm. & Utilities	1750	1750	1800	2050	2100	2550	2550	2550	2400	2050	1950	2000	2100
Trade	4100	4050	4100	4300	4500	4850	4950	4900	4750	4450	4300	4350	4500
Wholesale	350	300	350	350	300	350	350	350	350	350	300	300	300
Retail	3750	3750	3750	3950	4200	4500	4600	4550	4400	4100	4000	4050	4100
Finance-Ins. & R.E.	1100	1100	1100	1150	1150	1300	1300	1250	1200	1200	1200	1150	1200
Mining, Services & Misc.	4250	4250	4550	4400	4550	4750	4750	4750	4650	4500	4350	4300	4500
Government	12000	12150	12200	12300	12350	12000	12050	11800	12000	11650	11500	11400	12000
Federal	1950	2000	2000	2000	2100	2200	2250	2200	2200	2100	2050	2050	2100
State	5550	5550	5650	5650	5700	5550	5500	5250	5350	5200	5050	4950	5400
Local	4500	4600	4550	4650	4550	4250	4300	4350	4450	4350	4400	4400	4400

Nonagricultural Wage and Salary Employment
By Place of Work
GULF COAST

1986

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Nonag. Wage & Salary	18300	18500	18550	18700	20500	21350	24900	24450	21100	19350	18450	18000	20200
Mining	1100	1050	1000	950	950	950	900	900	900	850	850	850	900
Construction	1100	1050	950	950	1200	1400	1450	1550	1500	1400	1150	950	1200
Manufacturing	1900	2150	2150	2550	3550	3850	7450	7000	4000	2500	2050	1900	3400
Food & Kindred Prod.	1300	1550	1550	1950	2950	3250	6800	6400	3400	1900	1450	1300	2800
All Other Mfg.	600	600	600	600	600	600	650	600	600	600	600	600	600
Trans. Comm. & Utilities	1600	1550	1500	1350	1400	1400	1400	1350	1400	1300	1300	1350	1400
Trade	3250	3150	3250	3300	3600	3900	3950	3950	3750	3500	3400	3450	3500
Wholesale	450	450	450	500	600	650	650	650	650	500	500	500	500
Retail	2800	2700	2800	2800	3000	3250	3300	3300	3100	3000	2900	2950	3000
Finance-Ins. & R.E.	650	650	650	700	700	700	700	700	700	650	650	650	700
Services & Misc.	3050	3150	3200	3250	3350	3600	3650	3650	3400	3400	3300	3200	3400
Government	5650	5750	5850	5650	5750	5550	5400	5350	5450	5750	5750	5650	5600
Federal	550	550	550	550	600	650	650	650	650	600	600	600	600
State	1500	1550	1600	1650	1650	1650	1700	1600	1650	1600	1550	1500	1600
Local	3600	3650	3700	3450	3500	3250	3050	3100	3150	3550	3600	3550	3400

Alaska
Unemployment Rates
by Region and Census Area
1986

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	1986 Annual Average	1985 Annual Average
Alaska Statewide	11.7	12.1	12.2	12.2	11.0	10.9	10.2	9.8	9.2	10.0	10.6	11.2	10.9	9.6
Anch.-MatSu Region	9.5	9.9	10.2	10.6	10.0	9.8	9.7	9.4	8.6	8.8	9.1	9.6	9.6	8.3
Anchorage Borough	8.0	8.5	8.9	9.2	8.7	8.6	8.6	8.5	7.7	7.9	8.1	8.4	8.4	7.2
MatSu Borough	19.8	20.1	20.0	20.8	19.0	18.7	18.1	16.7	15.2	15.8	16.5	18.4	18.3	15.9
Gulf Coast Region	15.6	16.0	17.2	17.6	14.3	13.7	11.0	10.5	12.0	13.9	15.8	15.7	14.3	12.0
Kenai Peninsula Borough	18.6	19.1	20.6	20.7	18.0	17.5	14.5	13.9	14.9	17.2	19.2	18.5	17.6	14.1
Kodiak Island Borough	8.4	7.9	8.7	10.9	8.3	7.6	4.9	4.0	4.9	6.7	7.3	8.1	7.4	8.1
Valdez-Cordova	14.5	15.3	16.0	14.7	8.3	7.2	5.6	6.0	6.8	11.1	14.5	15.7	11.0	9.5
Interior Region	16.0	16.6	15.8	16.0	14.3	14.0	13.0	12.7	11.4	12.6	13.5	14.5	14.2	12.3
Fairbanks North Star Bor	15.6	16.0	15.3	15.5	14.2	13.8	13.0	12.7	11.5	12.3	13.1	13.9	13.9	11.9
Southeast Fairbanks	18.8	20.1	18.8	17.9	14.6	12.1	11.2	11.8	10.1	12.3	15.5	16.5	14.9	12.7
Yukon-Koyukuk	18.7	21.1	19.8	20.2	15.6	17.3	14.2	13.2	11.8	16.8	17.1	18.7	17.0	16.5

Northern Region	9.8	10.6	11.8	13.6	11.8	13.9	13.4	12.8	11.4	9.9	9.9	10.4	11.7	11.2
Nome	12.1	13.4	15.2	17.4	15.0	16.6	14.9	14.7	12.1	10.5	10.9	12.8	13.8	11.9
North Slope Borough	6.2	5.5	5.6	6.7	5.7	7.0	7.3	5.8	6.6	6.3	5.5	5.3	6.1	8.9
Northwest Arctic Borough	11.5	13.9	14.8	16.9	14.9	18.6	19.2	18.9	16.6	13.8	14.5	13.6	15.7	13.4
Southeast Region	14.1	13.9	13.1	10.5	9.2	9.1	8.4	7.5	7.1	9.7	10.2	11.5	10.2	10.2
Haines Borough	20.8	20.3	19.0	16.0	10.0	8.2	7.0	7.3	8.9	11.3	12.5	15.2	13.0	13.0
Juneau Borough	10.4	10.0	10.0	9.0	8.2	8.3	8.1	7.7	7.3	8.2	8.4	8.4	8.6	8.0
Ketchikan Gateway Borough	15.0	14.8	13.1	11.0	10.0	9.4	8.5	6.3	7.1	10.6	10.9	11.4	10.5	10.5
Pr. of Wales-Outer Ketchikan	19.7	21.9	18.5	14.3	13.0	13.7	11.9	9.8	10.0	16.8	15.3	17.3	15.1	14.5
Sitka Borough	12.5	12.6	12.0	8.0	8.0	7.7	7.2	7.2	5.3	7.7	8.3	9.4	8.7	9.9
Skagway-Yakutat-Angoon	25.2	24.3	24.5	20.1	14.5	12.1	12.6	11.4	8.7	14.2	16.4	23.6	17.2	17.9
Wrangell-Petersburg	18.1	17.4	16.2	10.5	8.1	9.7	6.6	5.7	5.5	8.6	12.2	15.9	11.1	11.9
Southwest Region	8.6	10.1	9.2	10.3	8.2	9.8	8.1	8.0	6.9	7.1	7.4	8.3	8.5	7.9
Aleutian Islands	2.5	2.8	3.0	4.3	3.1	3.6	3.3	3.5	3.7	4.2	4.1	4.6	3.5	2.6
Bethel	9.5	11.7	10.9	11.6	9.7	13.2	10.8	10.1	7.8	7.9	8.7	8.8	10.1	9.8
Bristol Bay Borough	13.4	14.3	13.1	11.8	6.6	4.6	4.4	3.7	2.8	5.3	10.1	11.4	8.4	8.0
Dillingham	10.3	11.2	8.7	10.9	7.3	7.9	5.7	6.2	6.3	7.6	7.5	9.0	8.1	7.2
Wade Hampton	14.1	16.2	15.5	16.5	15.1	15.0	13.0	13.8	12.2	10.2	8.9	12.4	13.6	13.4

Benchmark March 1986

Average Weekly Earnings
1986

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Avg
Mining	1225.66	1173.98	1230.45	1189.65	1141.06	1081.02	1123.87	1165.32	1170.43	1210.61	1281.52	1344.56	1193.92
Construction	925.76	908.12	1021.64	1035.50	1004.87	1056.24	1080.20	1152.77	1183.43	1234.53	1022.13	1036.46	1071.69
Manufacturing	482.25	499.70	510.08	499.78	479.97	469.13	456.23	473.76	422.80	512.47	511.04	495.50	477.58
Food & Kindred Prod.	244.03	305.24	311.83	300.27	285.84	269.55	372.61	394.35	253.18	295.14	256.40	247.85	317.95
Lumber & Paper Prod.	628.79	638.23	707.50	727.17	818.89	817.02	686.65	725.18	737.80	742.15	698.41	668.86	724.59
Transportation	548.21	563.14	549.69	561.74	552.09	578.03	582.38	566.18	557.02	550.37	544.60	557.00	560.20
Trade	387.26	387.11	382.91	383.79	376.53	382.36	371.18	376.19	384.10	387.89	384.05	386.12	381.90
Wholesale	541.44	528.83	520.71	517.49	492.51	510.68	501.35	513.25	527.06	535.81	540.69	568.51	523.97
Retail	330.88	331.69	330.12	333.47	334.12	337.26	323.93	329.62	334.95	339.10	331.34	329.29	332.30
Finance, Ins. & R.E.	394.91	396.72	402.88	379.29	387.82	396.97	394.91	392.54	382.80	386.12	405.86	401.36	393.42

Average Weekly Hours
1986

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Avg
Mining	52.2	51.4	52.9	51.5	50.4	50.8	52.2	51.7	50.8	50.4	53.8	56.0	52.0
Construction	41.2	39.9	42.8	43.6	41.2	43.2	44.0	45.6	46.3	47.3	41.0	42.6	43.6
Manufacturing	37.5	41.4	42.9	41.1	40.3	37.5	43.7	47.0	35.0	41.8	39.1	38.5	41.1
Food & Kindred Prod	32.8	41.7	41.8	38.3	36.0	31.6	44.2	47.8	28.1	33.5	28.3	27.6	38.4
Lumber & Paper Prod	44.5	44.6	49.2	49.1	52.9	51.0	44.3	50.5	52.7	57.8	53.6	53.0	50.6
Transportation	37.6	37.0	36.5	36.5	35.3	36.7	37.0	37.2	36.1	36.4	35.0	34.9	36.4
Trade	33.5	33.4	33.5	33.0	33.0	34.2	33.5	33.8	33.4	33.7	33.6	33.9	33.5
Wholesale	37.6	38.1	38.6	37.2	36.7	37.8	37.0	37.3	36.5	36.8	37.6	37.8	37.4
Retail	32.0	31.5	31.5	31.4	31.7	33.0	32.2	32.7	32.3	32.7	32.2	32.7	32.2
Finance, Ins. & R.E.	34.4	34.8	34.2	33.3	33.9	34.7	34.4	35.3	33.2	34.2	34.6	34.6	34.3

Average Hourly Earnings
1986

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Avg
Mining	23.48	22.84	23.26	23.10	22.64	21.28	21.53	22.54	23.04	24.02	23.82	24.01	22.96
Construction	22.47	22.76	23.87	23.75	24.39	24.45	24.55	25.28	25.56	26.10	24.93	24.33	24.58
Manufacturing	12.86	12.07	11.89	12.16	11.91	12.51	10.44	10.08	12.08	12.26	13.07	12.87	11.62
Food & Kindred Prod	7.44	7.32	7.46	7.84	7.94	8.53	8.43	8.25	9.01	8.81	9.06	8.98	8.28
Lumber & Paper Prod	14.13	14.31	14.38	14.81	15.48	16.02	15.50	14.36	14.00	12.84	13.03	12.62	14.32
Transportation	14.58	15.22	15.06	15.39	15.64	15.75	15.74	15.22	15.43	15.12	15.56	15.96	15.39
Trade	11.56	11.59	11.43	11.63	11.41	11.18	11.08	11.13	11.50	11.51	11.43	11.39	11.40
Wholesale	14.40	13.88	13.49	13.91	13.42	13.51	13.55	13.76	14.44	14.56	14.38	15.04	14.01
Retail	10.34	10.53	10.48	10.62	10.54	10.22	10.06	10.08	10.37	10.37	10.29	10.07	10.32
Finance, Ins. & R.E.	11.48	11.40	11.78	11.39	11.44	11.44	11.48	11.12	11.53	11.29	11.73	11.60	11.47

Benchmark March 1986

Alaska

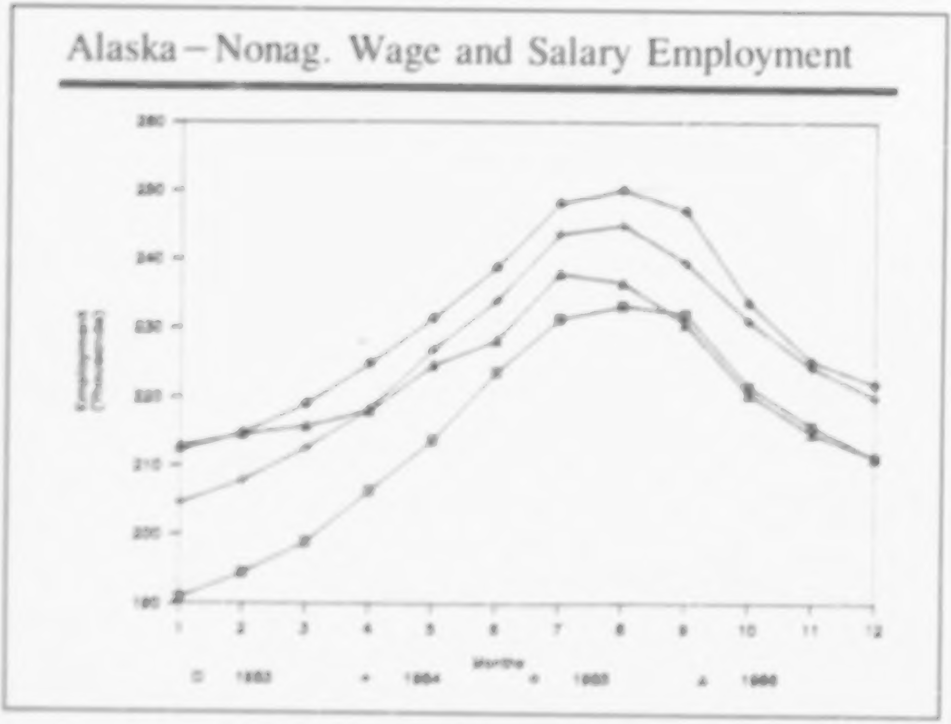
By Edward Eboch

The Year in Review

Although 1986 is viewed as the beginning of the recession in Alaska, in analyzing the benchmark employment numbers (Table 1 and the article beginning on page 1) show that the economy began to weaken by late 1985 before the sudden collapse of the price of oil. Year-to-year losses were not observed until March, 1986; but by October, 1985, the year-to-year gains observed earlier in 1985 were beginning to disappear (Figure 1). As a result, the original estimates for the second half 1985 were slightly high and year-to-year losses were not recorded until April 1986.

The largest error in the original employment estimates occurred in August 1986, when these estimates indicated a seasonal increase in employment. The revised estimates indicate a decline in employment from July to August, contrary to historical employment movements. By the end of the year, the earlier estimates were tracking the year-to-year losses of about 10,000 although both the November and Decem-

Figure I



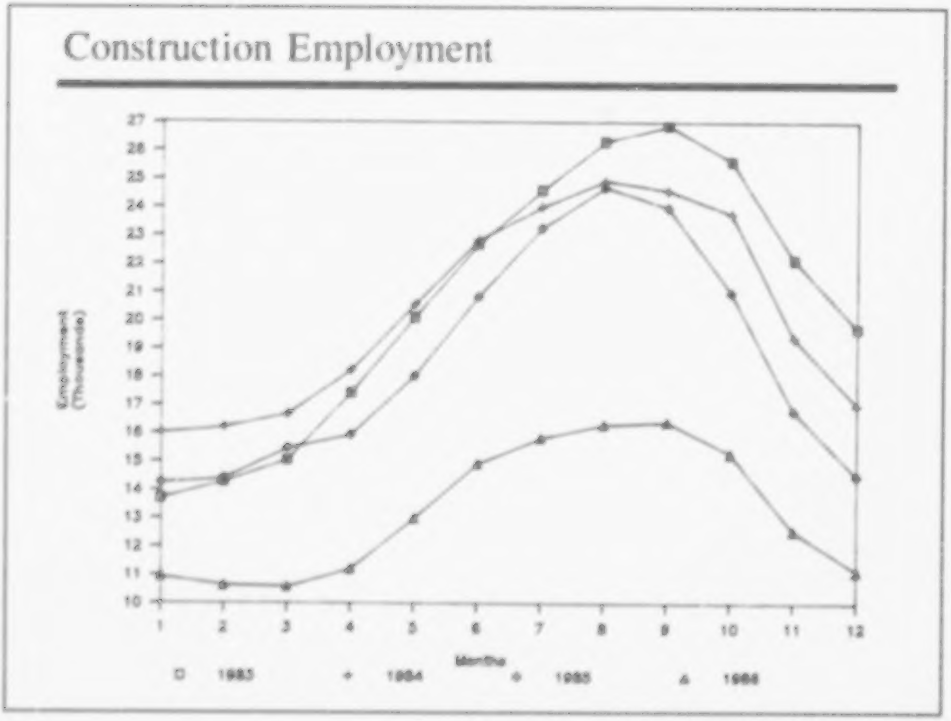
ber 1985 and 1986 estimates were slightly higher than the benchmark estimates.

In early 1985 employment losses were largely restricted to construction (Figure 2) and construction related firms. As 1985 progressed the losses in construction began to slow the growth of other industries. The construction industry, however, was not the only industry to have large declines in employment in 1985. The air transportation industry also had employment losses. With deregulation high cost airlines came under pressure to improve their operations or to close.

When Wein airline quit operating in mid-1985, it was assumed that other airlines would quickly increase employment to offset the loss of employment from Wein. Other airlines seemed quick to assume Wein's routes and to compete for their mail contracts. As a result earlier estimates adjusted the employment levels down only slightly from what would normally be the trend.

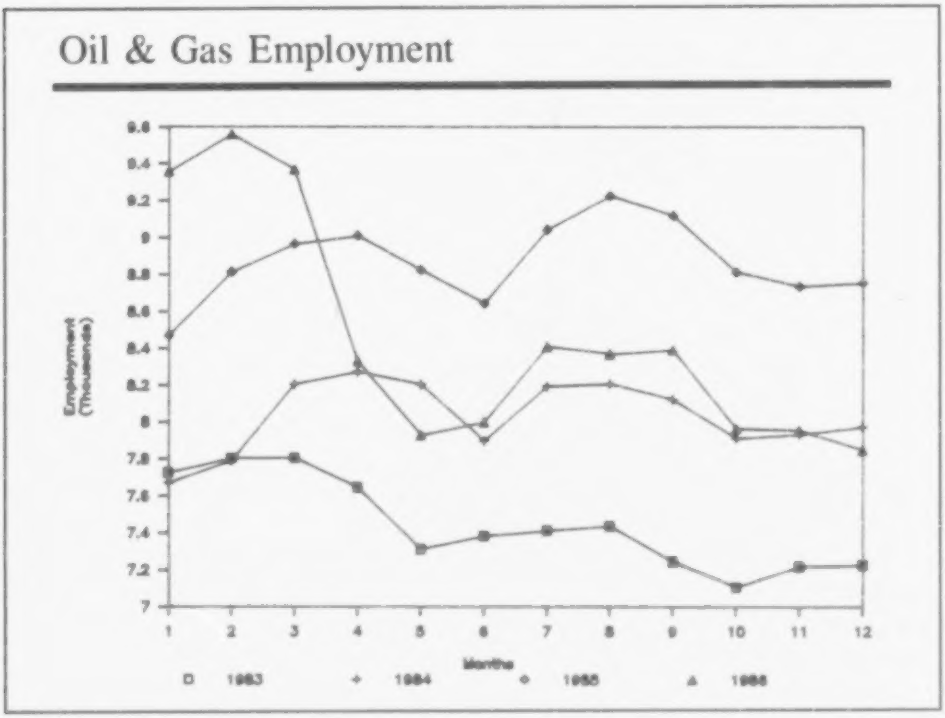
It now appears that other airlines did not need to increase their employment, or they increased employment only marginally with these new endeavors. This error accounts for approximately 800 of the over estimate in air transportation employment for the second half 1985.

Figure II



Construction Employment

Figure III

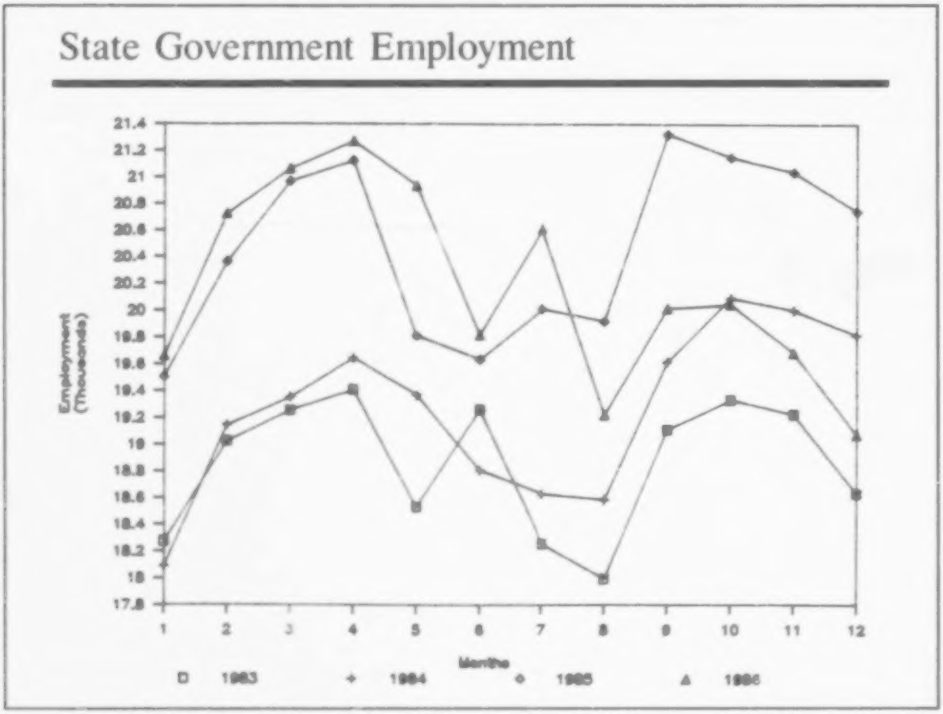

Oil & Gas Employment

With the decline in the price of oil, the oil companies cut back employment in 1986, especially in the exploration and development end of the business (Figure 3). The impact of cuts in oil and gas projects activity was also felt in construction, because oil and gas projects accounted for as much if not more construction employment than state funded projects.

The loss of jobs and income from the oil industry, in many ways Alaska's most important basic industry, was quickly followed by losses elsewhere in the economy. The loss of direct oil employment and oil related construction employment were translated to less business for the support industries. As peoples' expectations about the future changed, they began to become more conservative in their spending, resulting in an additional drop in demand for goods and services of the secondary industries.

By mid-year 1986, lower oil prices were projected to require cuts in state government expenditures, including reducing state employment (Figure 4). These cuts, begun in late 1985, added to the woes of Alaska's economy. By year-end there were losses in all industries, except manufacturing. A recovery in the timber industry and an excel-

Figure IV


State Government Employment

lent year for the fisheries industry, however, were not enough to offset the impact of the losses in mining and government.

The first sizable year-to-year drops in employment occurred in July, 1986. This drop was contrary to the normal seasonal trend for this time of year. The drop in employment cannot be explained by movement in any single industry. Mining and services (largely hotels and other services) lost employment contrary to the normal seasonal movements but these losses were not large enough to account totally for the downturn.

Rather, this unusual downturn in July employment was caused by a combination of declines in some industries and smaller growth than usual in other industries, as firms cut employment earlier than the usual seasonal adjustments. By August employment was again following the normal seasonal movements, but it was below the 1983 levels.

While the loss in construction and construction related industries employment accounts for much of the losses in employment through the end of 1986, the loss was not nearly as bad as previously thought when viewed from a historical perspective. Alaska has always had a construction workforce that is a greater percent share of nonagricultural

Alaska
Nonagricultural Wage and Salary Employment
By Place of Work

	Annual Average 1986	Annual Average 1985	Percent Change
Nonag. Wage & Salary	222100	230700	-3.7
Mining	9000	9500	-5.3
Construction	13200	18600	-29.0
Manufacturing	12400	12100	2.5
Food & Kindred Prod.	6600	6400	3.1
Lumber & Paper Prod.	2600	2300	13.0
All Other Mfg.	3200	3400	-5.9
Trans. Comm. & Utilities	18200	18700	-2.7
Trucking & Whseing.	2300	2300	0.0
Water Transportation	1300	1400	-7.1
Air Transportation	5400	5800	-6.9
Other Trans. Comm. & Utilities	9300	9300	0.0
Trade	44300	45800	-3.3
Wholesale	8100	8700	-6.9
Retail	36300	37100	-2.2
Gen. Mer. & Apparel	5300	5300	0.0
Food Stores	6000	6000	0.0
Eating & Drinking Pl.	13400	13400	0.0
Other Retail Trade	11600	12300	-5.7
Finance-Ins. & R.E.	12600	12800	-1.6
Services & Misc.	44200	44800	-1.3
Government	68200	68300	-.1
Federal	18100	17600	2.8
State	20200	20500	-1.5
Local	29900	30300	-1.3

wage and salary employment than for the United States as a whole, 6% to 7% versus 3% to 4%. From 1983 through 1985 construction employment was well above the historic norm. In 1986, Alaska's annual average construction employment returned to the historic range, 6% of total employment.

Conclusion

Alaska's economy approached depression levels by year-end 1986. Annual average nonagricultural wage and salary employment in 1986 was 3.7% below 1985's level, but it was running nearly 5% below year ago levels in the last two months of 1986. Losses in construction employment in 1984 and 1985 were more than offset by increases in employment in the secondary industries, but by the end of 1986, this had changed. All industries, with the exceptions of seafood processing and timber, had year-to-year losses from 1985 to 1986.

Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	p/ 1/87	r/ 12/86	1/86	Changes From: 12/86	 1/86
Nonag. Wage & Salary	205100	211400	212900	-6300	-7800
Mining	7800	8300	9700	-500	-1900
Construction	9700	11200	10900	-1500	-1200
Manufacturing	7900	7900	8100	0	-200
Food & Kindred Prod.	3100	2700	3200	400	-100
Lumber & Paper Prod.	1800	2200	1700	-400	100
All Other Mfg.	3000	3000	3200	0	-200
Trans. Comm. & Utilities	17000	17300	17500	-300	-500
Trucking & Whseing	2000	2000	2200	0	-200
Water Transportation	800	1000	1000	-200	-200
Air Transportation	5300	5300	5400	0	-100
Other Trans. Comm. & Utilities	8900	9000	8900	-100	0
Trade	41700	43700	43200	-2000	-1500
Wholesale	7200	7400	8300	-200	-1100
Retail	34500	36300	34900	-1800	-400
Gen. Mer. & Apparel	5200	5800	5200	-600	0
Food Stores	5900	6200	5600	-300	300
Eating & Drinking Pl.	12600	12700	12600	-100	0
Other Retail Trade	10800	11600	11500	-800	-700
Finance-Ins. & R.E.	12200	12300	12400	-100	-200
Services & Misc.	41900	42800	42900	-900	-1000
Government	66900	67900	68200	-1000	-1300
Federal	18400	18600	17400	-200	1000
State	18200	19100	19700	-900	-1500
Local	30300	30200	31100	100	-800

Prepared in cooperation with the U.S. Bureau of Labor Statistics.

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

- Benchmark date March 1986.

p/ Denotes preliminary estimates.
r/ Denotes revised estimates.

Once a trend is started it is difficult to reverse. Only time or a major positive economic event will stop the continued decline in employment. Even if oil prices remain at the $18 to $19 range, additional losses in employment are anticipated in 1987. The next issue of *Alaska Economic Trends* will give the Department of Labor, Research and Analysis' employment forecast for 1987 and 1988.

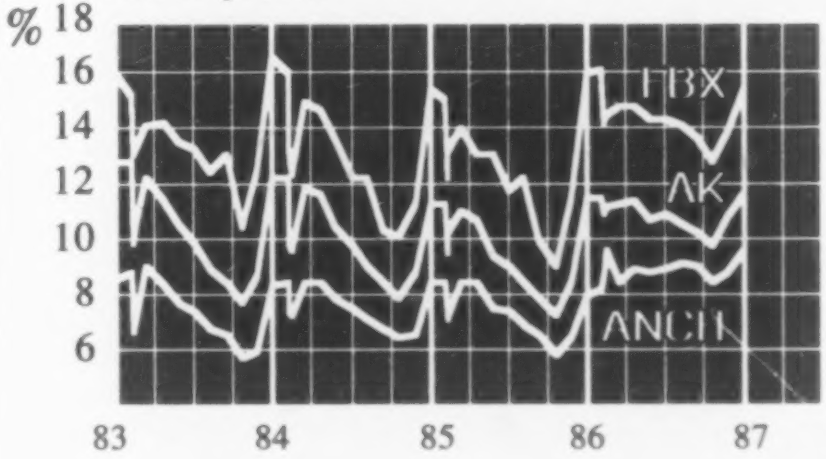
Current Events

The slide in employment continued as we entered the new year, although the rate and number of unemployed were below the previous January. The December-to-January loss in employment is typical as the manufacturing and construction industries reach their low points of the winter season and the trade and services industries layoff employees after the holidays. The less than usual seasonal losses for January appear to be more a result of less hiring coming into the holiday season than improved economic activity in the new year.

UNEMPLOYMENT RATE

not seasonally adjusted

1983 to present



Labor Force By Reg

	Labor Force			Unem
	P/ 1/87	R/ 12/86	1/86	P/ 1/87
Alaska Statewide	237114	241777	243498	27574
Anch.-MatSu Region	128297	131306	132780	12292
Anchorage Borough	112981	115970	116671	9394
MatSu Borough	15306	15336	16109	2898
Gulf Coast Region	24249	24622	24906	3988
Kenai Peninsula Bor	15072	15198	15402	2983
Kodiak Island Bor	5493	5630	5717	444
Valdez-Cordova	3684	3794	3787	561
Interior Region	36659	37304	37081	5632
Fairbanks North Star Bor	31582	32194	32036	4642
Southeast Fairbanks	2176	2228	2234	367
Yukon-Koyukuk	2901	2882	2811	623
Northern Region	7437	7528	7774	777
Nome	2811	2978	3029	281
North Slope Borough	2626	2655	2749	175
Northwest Arctic Bor	2000	1995	1996	321
Southeast Region	30373	30938	30760	4011
Haines Borough	877	871	902	166
Juneau Borough	12773	13250	13070	1080
Ketchikan Gateway Bor	6109	6224	6282	739
Pr. of Wales-Outer Ketch	2349	2360	2246	550
Sitka Borough	3442	3601	3600	301
Skagway-Yakutat-Angoon	1541	1533	1512	413
Wrangell-Petersburg	3282	3196	3169	693
Southwest Region	10109	9962	10136	474
Aleutian Islands	2582	2552	2551	129
Bethel	4009	3963	4046	344
Bristol Bay Borough	413	394	415	51
Dillingham	1811	1778	1847	175
Wade Hampton	1294	1285	1313	175

P/ Preliminary. R/ Revised. 1986 Benchmark

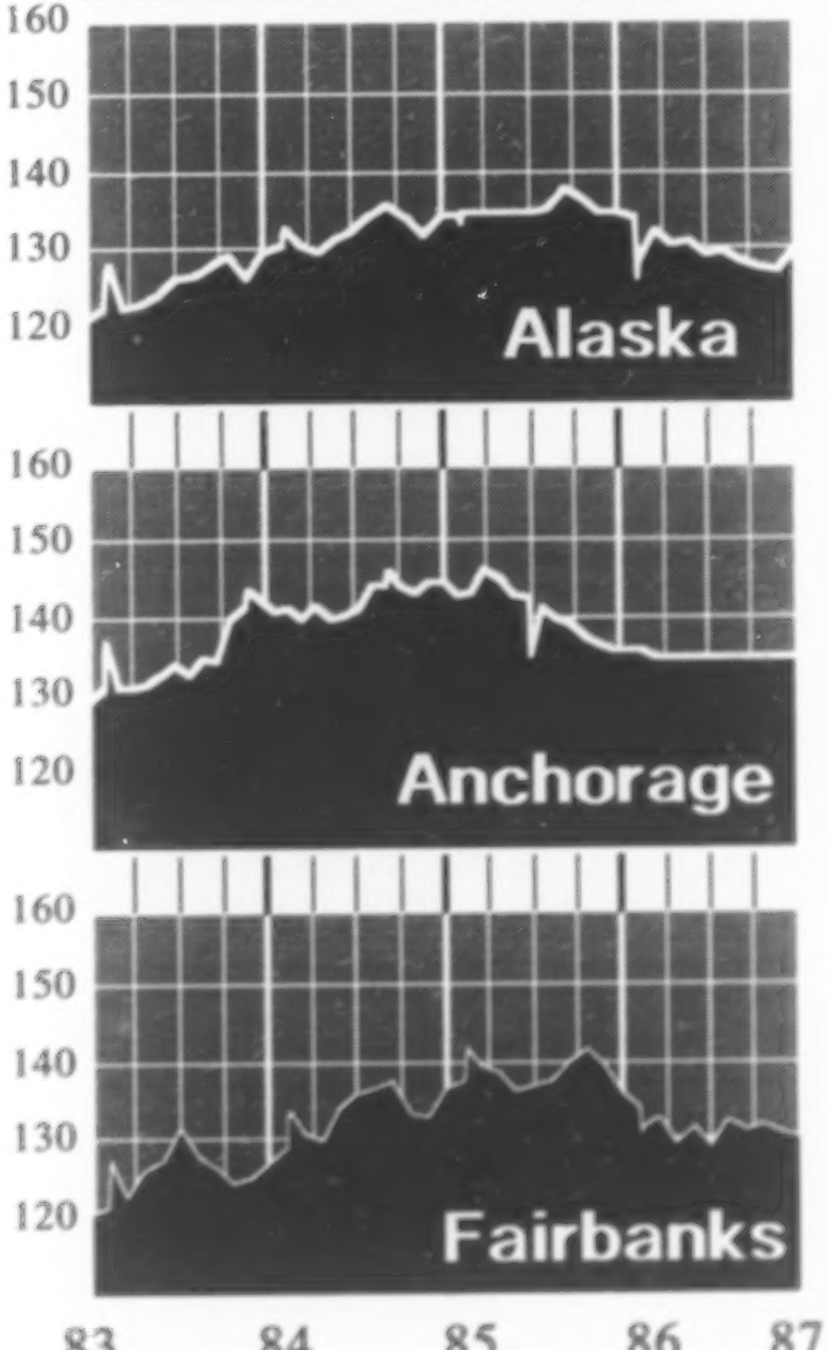
Federal guidelines require the use of unadjusted labor force data
statistics used to allocate federal funds. Comparisons between diffe
by the Alaska Department of Labor, because Alaska's CPS sampl
The sampling errors are random in nature, meaning that the average
as they are low. The official definitions of unemployment, "currentl
the four week period up to and including the week that includes the
also have proportionately more of these discouraged workers.

n and Census Area

ployment		Rate			Employment		
R/ 86	1/86	P/ 1/87	R/ 12/86	1/86	P/ 1/87	R/ 12/86	1/86
82	28372	11.8	11.2	11.7	209540	214728	215126
11	12584	9.6	9.6	9.8	115996	118693	120216
91	9325	8.3	8.4	8.0	103587	106179	107296
22	3189	18.9	18.4	19.8	12408	12514	12920
30	3896	16.4	15.7	15.6	20061	20762	21010
10	2866	19.6	18.5	18.6	12088	12388	12538
56	481	9.1	9.1	8.4	5049	5174	5236
04	549	15.3	15.7	14.6	3123	3200	3238
95	5943	15.4	14.8	15.0	31027	31908	31138
87	4999	14.7	13.9	15.6	26940	27720	27037
68	419	16.9	16.5	18.8	1808	1860	1815
40	525	21.3	19.7	18.7	2279	2342	2286
95	797	10.3	10.4	9.9	6440	6840	7009
82	366	16.0	12.8	12.1	2530	2596	2663
41	135	6.2	5.3	6.2	2451	2514	2579
72	229	16.1	13.8	11.5	1679	1723	1767
57	4121	14.2	12.5	14.7	26082	27273	28428
32	188	19.6	15.2	20.9	712	729	714
16	1351	8.5	8.4	10.4	11889	12134	11717
09	867	14.1	11.9	13.7	5107	5616	5325
40	443	20.4	17.3	18.7	1789	1866	1824
39	451	6.7	9.4	12.9	3141	3262	3149
62	581	29.6	21.6	25.0	1125	1171	1121
07	375	17.1	15.3	14.1	1589	1694	1596
12	460	4.8	6.1	8.9	8538	8757	8917
18	102	4.1	1.9	2.1	2444	2444	2488
02	198	5.0	4.6	6.1	3945	3821	3846
18	59	14.4	11.1	10.4	382	349	355
40	144	9.4	9.1	9.7	1637	1674	1648
07	186	13.5	12.1	11.5	1138	1196	1138

djusted to be consistent with the Current Population Survey (CPS) w
for these periods are not as meaningful as other time series published
able is inadequate to accurately estimate monthly changes in level
ployment rates in any given month are as likely to be high as frequently
n place: everyone anyone who has made no attempt to find work [illegible]
duty of each month. Most economists feel that Alaska's [illegible]

COMPOSITE NONAG. EMPLOYMENT INDEXES



SEASONALLY ADJUSTED 1983 TO PRESENT

source: ak. dept. of labor

Anchorage/MatSu

By Greg Huff

1986 Benchmark: Revised Estimates

The revised employment estimates for Anchorage reveal that employment levels deteriorated quickly and dramatically from December 1985 to January 1986, and the economic downturn picked up momentum as the year progressed. Over-the-year employment growth of 2% in December was followed by a 1% over-the-year decline in January. Employment losses then escalated over the next eleven months. By December 1986 employment levels were down 7% over the previous December. The annual average employment estimates indicate that employment declined by 5,300 jobs or 4.6% from 1985 to 1986.

This was Anchorage's single largest yearly decline in employment in the past 30 years. Anchorage, however, had never experienced such a period of economic expansion and diversification such as the one that was recorded during the first half of the 1980s. As a result, Anchorage's economic base and infrastructure is larger and more diversified today than it would have been, given historical growth trends prior to the 1980s.

As Table 1 indicates, the extent of employment declines were widespread. Only the government sector experienced over-the-year increases. This was basically due to increases prior to July 1986, be-

Table 1
Anchorage Employment
Change by Industry
(1986 Benchmark)

	Percent Change 1985-1986	Absolute Change 1985-1986
Total	-4.6%	-5,300
Mining	-18.2%	-400
Construction	-21.8%	-2,400
Manufacturing	-7.1%	-100
Transportation, Comm. & Util.	-1.0%	-100
Trade	-5.7%	-1,600
Finance, Insur. & REstate	-5.6%	-500
Services	-4.6%	-1,200
Government	1.1%	+300

fore the beginning of the 1986 state fiscal year. Thereafter, state and local government experienced a year to year loss of jobs. In September the effects of school employment reductions compounded the losses in government. By December state and local government employment were down by over 400 from the previous year. Federal government employment, however, continued on a moderate growth trend.

Comparison of Original Estimates and Benchmarked Estimates

As explained in further detail in the lead article beginning on page 1 in this issue of *Alaska Economic Trends* the revised estimates are the result of a procedure referred to as **benchmarking**. As a result of benchmarking the employment numbers better indicate the economy's direction as well as the magnitude and dynamics of that direction.

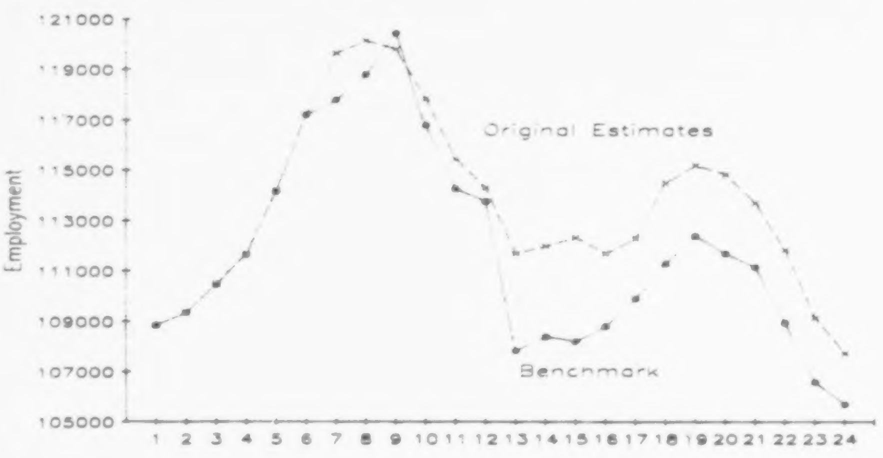
The variation in the trends of the original and benchmarked estimates is illustrated by Figure 1. The deviation of the two series after June 1985 was primarily caused by a departure from seasonal patterns during the summer that was a result of a weaker than anticipated trade sector. The difference between the original and benchmarked estimates for 1985, however, was only 800 jobs. The main deviation between the original and the benchmarked estimates occurred from December 1985 to January 1986.

The original estimates did not capture the rapid decline in employment from December to January. After January the trend patterns of the two estimates are similar, yet the original estimates remain above the benchmarked numbers. At year-end the original estimates showed an annual decline in Anchorage employment of 2.2% compared to the 4.6% decline recorded by the benchmarked estimates. This equates to the original estimates being 2,500 jobs too high.

The major deviation of the two series was due to a more volatile than anticipated support, or secondary, sector. The most volatile of these industries was services. According to the benchmarked estimates, the services industry was growing at 3.6% on a year-to-year basis in December 1985, but by January year-to-year employment decreased 2.5%.

The two components of the services sector responsible for most of the rapid decline were: (1) the business services component, which contain firms that are engaged in advertising or public relations, blueprinting and photocopying, services to buildings, equipment rental and leasing and computer and data processing related services; and (2) the miscellaneous services component, which encompasses

Figure I



Anchorage Employment
Original Estimates vs. Benchmark
January 1985 – December 1986

repair services, engineering, architectural, and surveying services, and accounting and bookkeeping services. Combined employment in these two components fell by 1,000 jobs in one month.

Both the trade and finance, insurance and real estate industries were more volatile than anticipated. Employment declines were largest from December to January, but both industries also had summer employment levels well below their normal levels. In addition, Christmas season employment gains were below normal in the retail trade sector. Throughout the year all aspects of trade were reflecting some employment declines, but particularly hard hit were the specialty retailers.

Employment Losses Continue in the New Year

Anchorage employment statistics for January show employment losses of 5,600, a 5.1% drop from the levels recorded in January 1985. Over the past 13 months employment has declined by 10,900 jobs. January's levels, however, remain above January 1983 levels (96,450) but below January 1984 levels (104,300).

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/	r/		Changes From:	
	1/87	12/86	1/86	12/86	1/86
Nonag. Wage & Salary	102250	105700	107850	-3450	-5600
Mining	3100	3150	4000	-50	-900
Construction	5250	5850	6250	-600	-1000
Manufacturing	2100	2150	2300	-50	-200
Food & Kindred Prod.	400	400	400	0	0
Other Mfg.	1700	1750	1900	-50	-200
Trans. Comm. & Utilities	8800	9050	9100	-250	-300
Trucking & Whseing	1350	1350	1300	0	50
Water Transportation	200	250	250	-50	-50
Air Transportation	2900	2950	3050	-50	-150
Other Trans. Comm. & Utilities	4350	4500	4500	-150	-150
Trade	25000	26250	26700	-1250	-1700
Wholesale	5600	5700	6400	-100	-800
Retail	19400	20550	20300	-1150	-900
Gen. Merchandise	1950	2150	1900	-200	50
Food Stores	3050	3150	2850	-100	200
Eating & Drinking Pl.	7850	7850	8150	0	-300
Other Retail Trade	6550	7400	7400	-850	-850
Finance-Ins. & R.E.	8000	8050	8300	-50	-300
Services & Misc.	24000	24400	24900	-400	-900
Government	26000	26800	26300	800	-300
Federal	10300	10350	9900	-50	400
State	6650	7150	7000	-500	-350
Local	9050	9300	9400	-250	-350

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/	r/		Changes From:	
	1/87	12/86	1/86	12/86	1/86
Nonag. Wage & Salary	108750	112400	114750	-3650	-6000
Mining	3100	3150	4000	-50	-900
Construction	5500-	6150	6600	-650	-1100
Manufacturing	2150	2200	2400	-50	-250
Trans. Comm. & Utilities	9500	9750	9800	-250	-300
Trade	26500	27850	28250	1350	-1750
Finance-Ins. & R.E.	8500	8600	8850	-100	-350
Services & Misc.	25150	25550	26200	-400	-1050
Government	28350	29150	28650	-800	-300

The employment decline of 5.1% for January is an improvement from the 7.1% decline in December 1986. If this trend continues, the worst of the employment losses may have occurred during 1986.

The unemployment rate fell slightly in January as a result of a 400 drop in the number of unemployed Anchorage workers. This may indicate that population declines have begun in earnest. Several more months of data will be needed to confirm this trend. Even though the economy may not recover in 1987, the unemployment rate may fall compared to 1986 due to out-migration of unemployed workers.

Fairbanks/Interior

By Neal Fried

1986 Employment Downturn Underestimated

The recently benchmarked 1986 employment figures now make it official that the estimates over the course of the year underestimated the decline in Fairbanks' employment. This is not up-to-date news because as early as May 1986, administrative data that made it obvious the estimates were already too high became available (see May 1985 Trends).

As 1986 progressed, the estimates improved and were closer to the benchmarked data. The magnitude of the difference between the estimates and actual data occurred because of the unexpected sharp downturn in Fairbanks' employment early in 1986. Employment during the last quarter of 1985 had remained so strong that the rapid decline in total employment during the first quarter of 1986 was not captured in the estimates until later in the year. The prebenchmarked employment estimates for Fairbanks indicated only a 1% decline in total employment in 1986 compared to an actual decline of 5.1%.

The construction employment estimates were responsible for most of the benchmark revisions. Construction employment actually fell 41.9% while the earlier estimates indicated only a 16% declined. Construction employment remained strong through the last quarter of 1985, 38% above the last quarter 1984, but during the 1st quarter 1986 the trend reversed itself and construction employment plummeted. This sudden change in events was not captured early enough, causing the estimates to be too high.

The other industries that contributed significantly to the error in the estimates were transportation, communication and utilities and trade. Trade's estimates indicated a 1.6% decline compared to an benchmarked decline of 4.8%. Transportation, communication and utilities estimates remained flat, whereas the benchmark figures came in with a decline of 3.6%. All other industry estimates were either very close or identical with the benchmark figures.

Employment Declines Picked Up Steam

The benchmark numbers indicate that employment declines picked up steam during the course of the year. During the first half of the year total employment had fallen by 3.5% but by the end of the year the annual average decline reached 5.1%. All of the industries that

Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

	p/ 1/87	r/ 12/86	1/86	Changes From: 12/86	Changes From: 1/86
Nonag. Wage & Salary	25300	26500	26300	-1200	-1000
Mining	100	100	100	0	0
Construction	1200	1550	1350	-350	-150
Manufacturing	550	600	550	-50	0
Trans. Comm. & Utilities	2550	2550	2500	0	50
Trucking & Whseing.	400	400	400	0	0
Air Transportation	900	900	900	0	0
Other Trans. Comm. & Utilities	1250	1250	1200	0	50
Trade	5300	5750	5450	-450	-150
Wholesale	850	900	900	-50	-50
Retail	4450	4850	4550	-400	-100
Gen. Mer. & Apparel	550	700	550	-150	0
Food Stores	750	750	750	0	0
Other Retail Trade	3150	3400	3250	-250	-100
Finance-Ins. & R.E.	1000	1050	1050	-50	-50
Services & Misc.	5450	5600	5850	-150	-400
Government	9150	9300	9450	-150	-300
Federal	2850	2900	2700	-50	150
State	3600	3800	3850	-200	-250
Local	2700	2600	2900	100	-200

Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/ 1/87	r/ 12/86	1/86	Changes From: 12/86	Changes From: 1/86
Nonag. Wage & Salary	29200	30450	29950	-1250	-750
Mining	250	250	250	0	0
Construction	1250	1600	1400	-350	-150
Manufacturing	550	600	550	-50	0
Trans. Comm. & Utilities	2850	2900	2850	-50	0
Trade	5650	6100	5750	-450	-100
Finance-Ins. & R.E.	1100	1100	1100	0	0
Services & Misc.	5900	6050	6200	-150	-300
Government	11650	11850	11850	-200	-200

showed declines during the first half of the year continued to experience losses during the remainder of the year.

Mining employment was the only industry that went from growth in the first half of 1986 to declines by the end of the year. This was largely the result of the Grant Mine and NERCO Minerals Inc. layoffs. Fairbanks' government employment went from 3% growth during the first half of 1986 to no growth by the end of the year.

Local government, which was still growing during the first half of the year, began to lose employment during the third and fourth quarters. State government losses that began during the first half of the year increased as the year progressed. The growth in federal government prevented the overall government sector's employment from falling.

Current Events

Fairbanks' employment fell in January. It is typical for Fairbanks' em-

Table 1
Fairbanks
Nonagricultural Wage and Salary Employment
By Place of Work

	1985	**1986**	**Percent Change**
Total	29,200	27,700	-5.1%
Mining	200	100	-50.0%
Construction	3,100	1,800	-41.9%
Manufacturing	600	600	0.0%
Trans. Comm. Utilities	2,800	2,700	-3.6%
Trucking & Whseing	500	400	-20.0%
Air Transportation	900	1,000	11.1%
Other Transportation	1,400	1,400	0.0%
Trade	6,200	5,900	-4.8%
Wholesale	1,000	900	-10.0%
Retail	5,100	5,000	-2.0%
Gen Mer. & Apparel	500	600	20.0%
Food Stores	800	800	0.0%
Other Retail	3,800	3,700	-2.6%
Finance-Ins. & R.E.	1,000	1,100	10.0%
Services & Misc.	5,800	6,000	3.4%
Government	9,600	9,600	0.0%
Federal	2,700	2,900	7.4%
State	4,000	3,900	-2.5%
Local	2,800	2,800	0.0%

Source: Alaska Department of Labor, Research and Analysis Section.

Benchmark Date June 1986.

ployment to fall in January because the frenzied Christmas season is over and other seasonal activity such as construction is reaching its low point of the year. Declines in employment in other industries, however, also continue to plague the local economy. Six out of the eight major industry categories experienced over-the-year declines in January.

The unemployment rate increased from 13.9% in December to 14.7% in January, an increase typical for most Januarys. More important, however, is the fact that Fairbanks' unemployment rate in January showed signs of improvement over January's 1986 rate of 15.6%. Part of this may simply mean an increasing number of unemployed residents are leaving, but it could also be the first indication that declines in employment in 1987 are already smaller than last year's. Whether this is true will become more clear after several months of data are available.

Gulf Coast

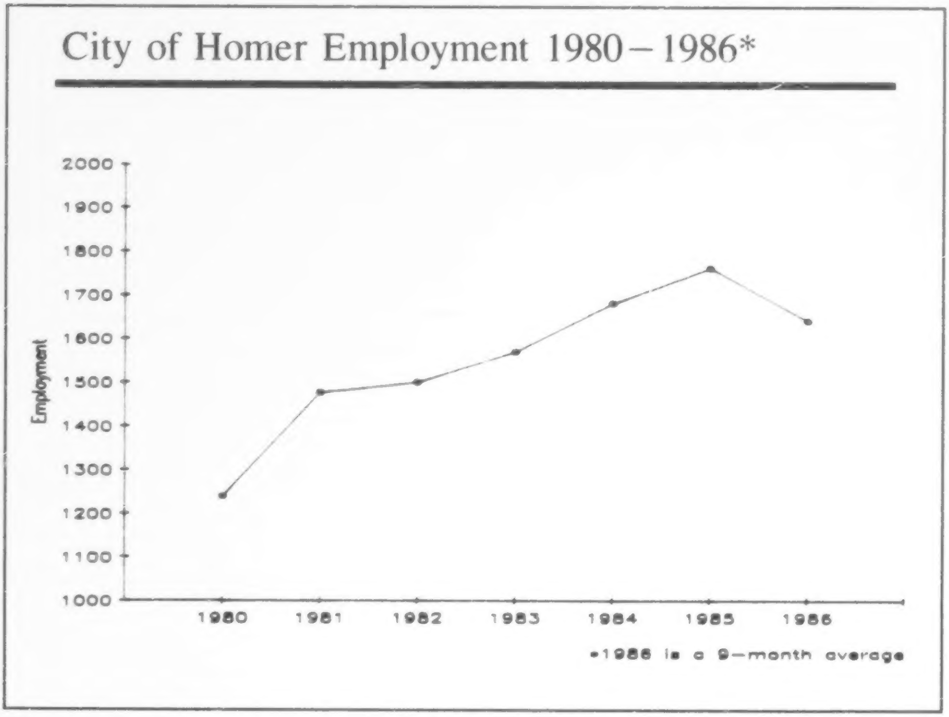
By Neal Fried

Homer's Employment—No Longer Growing

Homer employment figures indicate that employment fell in 1986 for the first time in many years. Historically, Homer's population and employment have grown briskly, more than most communities on both the Kenai Peninsula and statewide. As recently as 1985, employment in Homer grew 4.7% compared to 2% statewide. After five straight years of robust growth, employment in Homer fell 7.1% in 1986, a loss of 121 jobs.

The events building up to this condition were repeated all over the state. Initially, too much residential and commercial space was built and too many businesses were established for the Homer economy to absorb immediately. A period of readjustment began to occur. Before Homer could digest this new capacity the economy was hit by the economic effects of falling oil prices.

The construction industry was the hardest hit by the changed economic climate. Construction accounted for most of the losses in em-



ployment. Construction employment fell 46.5%, from 244 jobs in 1985 to 131 in 1986. The number of building permits issued by the City of Homer fell from 123 in 1985 to 62 in 1986. Construction valuation for the same period fell 62%. Public construction remained relatively strong in 1986, but residential and commercial construction fell off dramatically.

Other major industry categories that lost employment in 1986 included finance, insurance and real estate, manufacturing, transportation, and state government. Finance, insurance, and real estate lost 7.2% of its employment, although the number of jobs lost was relatively small.

Manufacturing employment, primarily fish processing employment, fell by 23 jobs in 1986. Since the shrimp and king crab fisheries have not improved and bottom fishing has not yet taken hold in Homer, employment increases in fish processing remain elusive.

State government joined the list of industries losing employment in 1986. The significance of the state government losses is not in the number of employees lost, but the fact that a stable sector such as state government joined the downturn of the economy.

Trade and services, on the other hand, actually grew during 1986. This is surprising because trade typically reacts quickly to a contraction in the economy. Sales data for Homer in 1986 fell 5%, but this apparently did not translate into a decline in retail trade employment. A healthy tourism season may have kept the numbers above 1985's level.

Tourism has the biggest impact on retail trade and services in Homer. Services includes lodging and recreation services and trade includes all of Homer's shops and eating and drinking places. Combined, services and trade employ 37% of Homer's wage and salary employment.

Despite increased employment in trade and services, no consensus exists regarding the health of Homer's 1986 tourism season. Some tourism operators felt 1986 was better than ever and others experienced quite the contrary. This could be because operators cater to different segments of the tourist industry.

One factor working against tourism in 1986 was Alaska's deteriorating economy. It has been estimated that approximately 87% of the tourists who visit the Kenai Peninsula are from Alaska. If fewer of the states' residents visited Homer and spent less money, this segment of tourism probably suffered, however, a growing number of out-of-state tourists helped offset these losses.

Table 1
City of Homer 1/
Employment by Industry
1985-1986

	1985	1986	Percent Change 1985-86
Total Employment	1678	1556	7.3%
Mining	**	**	-3.0%
Construction	244	131	46.3%
Manufacturing	183	160	-12.6%
Trans. Comm. & Utilities	190	184	-3.2%
Trade	319	348	9.1%
Finance-Ins. & R.E.	**	**	-7.2%
Services & Misc.	273	275	0.7%
Government	386	387	0.3%
Federal	39	39	0.0%
State	19	16	-15.8%
Local	328	332	1.2%

1/ The data is based on the first nine months of each year and does not include Kachemak Bay and Ninilchik employment of approximately 175.

**nondisclosable

Source: Alaska Department of Labor, Research & Analysis, ES-202 Report

Bradley Lake

A discussion of Homer's economy would not be complete without mentioning the Bradley Lake hydroelectric project. The project has not impacted the City of Homer as heavily as many people expected. Though employment on this project is not located or counted in Homer, it does affect Homer's economy, and it may offset some of the employment losses in Homer's other industries.

Work on the $356 million project began in July and the work force peaked at 176 in August. During the first phase of the project approximately 59 people from Homer and the surrounding area worked on the project. Others were involved in the logistics and supplied goods to the worksite across Kachemak Bay. Even though the total number of workers is small, in a labor force of Homer's size it can be significant.

It is uncertain whether the project will continue to move ahead. If it does, the project's completion date is December 1989, and its peak work force could reach 450. Though Homer has not seen the last of the effects of falling oil revenues, the Bradley Lake project may cushion the declines.

Current Events

The new year brought little relief to the labor force in the Gulf Coast region. The Kenai Peninsula Borough's unemployment rate climbed again in January, reaching 19.8%. Almost 1 in every 5 borough residents active in the labor force was unemployed. This represents an increase of 1.2 percentage points over last January's unemployment rate.

Kodiak's picture was considerably better, boasting an unemployment rate less than half as high as the Kenai Borough's. Kodiak's January unemployment rate was 8.1%, a slight improvement over last January's rate of 8.4% and unchanged from December. Valdez-Cordova's unemployment rate of 15.2% represented a small improvement over December's figure (15.7%) but was higher than last January's (14.5%).

Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/ 1/87	r/ 12/86	1/86	Changes From: 12/86	1/86
Nonag Wage & Salary	17400	18000	18300	-600	-900
Mining	850	850	1100	0	-250
Construction	800	950	1100	-150	-300
Manufacturing	1850	1900	1900	-50	-50
Food & Kindred Prod.	1300	1300	1300	0	0
All Other Mfg.	550	600	600	-50	-50
Trans. Comm. & Utilities	1350	1350	1600	0	-250
Trade	3300	3450	3250	-150	50
Wholesale	500	500	450	0	50
Retail	2800	2950	2800	-150	0
Finance-Ins. & R.E.	650	650	650	0	0
Services & Misc.	3050	3200	3050	-150	0
Government	5550	5650	5650	-100	-100
Federal	600	600	550	0	50
State	1400	1500	1500	-100	-100
Local	3550	3550	3600	0	-50

Southeast Alaska

By John Boucher

Southeast Alaska Employment Falls in 1986

For the first time in recent history, Southeast Alaska's wage and salary employment declined from the previous year. Employment in the region dropped by one percent from 1985 to 1986. The loss of 282 jobs put the 1986 annual average employment at 29,044.

While employment losses over-the-year are never good news, there is some consolation in the relative performance of the Southeast Alaska economy. Other regions of the state lost from three to five percent of their total employment over the year so Southeast Alaska's economy did better than other regions during 1986.

Construction

Construction employment continued to decline in 1986, a trend that began in 1983. The drop in construction employment this year was more dramatic than the past two years, a 31.2% drop compared to drops of 10% and 8% the previous two years. To put 1986 into an historical perspective, it was the lowest total for construction employment in the 1980s, but it was still above 1979's level.

Table 1
Construction and Southeast Employment
1975-1986

Year	Const.	Total Nonag.	Const. % of Tot.
1975	953	21,946	4.3%
1976	954	22,230	4.3%
1977	974	23,049	4.2%
1978	997	24,763	4.0%
1979	944	24,967	3.8%
1980	1,212	27,610	4.5%
1981	1,428	27,267	5.2%
1982	1,514	27,844	5.4%
1983	2,017	28,706	7.0%
1984	1,814	28,875	6.3%
1985	1,665	29,326	5.7%
1986	1,146	29,044	3.9%

Traditionally, construction has played a large role in the wage and salary employment picture in Southeast Alaska as well as the rest of the state. Since 1975, the construction industry has employed between 3.8 and 7.0 percent of total employment in the region (Table 1).

During the early 1980s as the state's ability to spend on capital projects increased and commercial and residential construction responded to a rapidly increasing population, construction employment became an even more important part of the Southeast Alaska economy. In 1986, construction employment dropped to a level more in line with the industry's traditional share of total employment, around 4.0 percent of total employment.

Manufacturing

The manufacturing industry was the bright spot in the Southeast Alaska economy during 1986. The lumber and paper products industry experienced a tremendous resurgence, fueled by a more favorable yen/dollar exchange rate and increased competitiveness in the industry due to cost cutting measures. This industry experienced its highest level of employment since 1982.

Not all segments of the industry, however, are doing as well as they did in 1982. The logging portion of employment has been the major benefactor of the latest growth. In 1986 the sawmill portion of the industry employed about 60 % of what it did in 1982 while the pulp mill operated at about 80% of the employment it had in 1982.

The food and kindred products sector, which is predominantly seafood processing, also experienced growth in employment during 1986. Peak employment in August and July, especially in southern Southeast Alaska, rivaled some of the best years in recent history in terms of seafood harvesting employment. The off-seasons were not as productive, so the gain in overall food and kindred products employment was held to a modest five percent.

The other manufacturing portion of the industry, primarily newspaper and printing firms, showed little change during the year.

Transportation, Communication, and Utilities

The transportation industry in Southeast Alaska has four major sectors; air transport, water transport, communication and utilities and other transportation. In 1986 three of these four catagories experienced employment growth.

Air transportation was one of the fastest growing due to an increase in summer traffic related to the tourism industry. Water transportation employment on the other hand generally follows the pattern of the lumber and paper products industry. When the wood products industry prospers as it did in 1986 it was good news for water transportation employment.

Some of the increase in water transportation employment can also be accounted for by an increase in tour ship traffic through the Inside Passage. The other transportation growth category, where ground transportation operators such as Westours are counted, was also the benefactor of employment growth due to tourism.

The communication and utilities portion of the transportation industry struggled through most of 1986. Increased competition in the long distance market added some additional employment but restructuring of the existing long distance carrier almost offset the employment gains. Overall, this sector of the industry maintained 1985's level of employment.

Trade, Services

Trade employment dropped by slightly less than 2 percent during 1986. Much of the drop off in trade employment was related to the construction industry. In wholesale trade, construction equipment and other durable goods wholesalers experienced employment losses in 1986. In retail trade, building material supply stores and furniture stores lost employment in 1986. The food store and eating and drinking portions of retail trade gained employment in 1986.

In the services industry, employment followed the trade industry pattern of small employment losses, however, nearly all of the employment loss was confined to the hotel/motel sector of the industry. Two major hotels in Sitka were consolidated into one facility accounting for a great deal of the employment loss.

Finance-Insurance & Real Estate and Government

Finance-insurance and real estate was a strong growth industry in 1986. Some of this growth could be attributed to additional employment in Southeast Alaska native corporations, but most of it was the financial area which includes banks, credit unions and stockbrokers.

Government employment was the second largest job loser during 1986. In the past government employment has been one of the areas which has grown despite poor economic conditions in the other industries in the region. The drastic change in the state's oil revenue picture has changed this for both state and local government. Most of the cutback in employment in state government has been in the non-education-related employment. On the local government side, education related employment is sharing the employment cuts along with the noneducational portion of local government.

Table 2
Southeast Region
Nonagricultural Wage and Salary Employment
1985 and 1986 Annual Averages

	1985	1986	Net Change	Percent Change
Nonag. Wage & Salary	29,326	29,044	-282	1.0%
Construction	1,665	1,146	-519	-31.2%
Building Const.	497	344	-153	-30.8%
Heavy Const.	491	363	-128	-26.1%
Special Trades	677	438	-239	-35.3%
Manufacturing	3,219	3,655	436	13.5%
Food & Kindred Prod.	996	1,049	53	5.3%
Lumber & Paper Prod.	2,015	2,402	387	19.2%
Other Mfg.	208	205	-3	-1.4%
Trans. Comm. & Utilities	2,032	2,125	93	4.6%
Water Trans.	470	492	22	4.7%
Air Trans.	469	522	53	11.3%
Communications & Utils	649	641	-8	-1.2%
Other Trans.	444	453	9	2.0%
Trade	4,552	4,464	-88	-1.9%
Wholesale	370	332	-38	-10.3%
Retail	4,182	4,132	-50	-1.2%
Food Stores	845	846	1	0.1%
Eating & Drinking Pl.	1,342	1,387	45	3.4%
Other Retail Trade	1,996	1,899	-97	-4.6%
Finance-Ins. & R.E.	1,114	1,187	73	6.6%
Mining, Services & Misc.	4,541	4,500	-41	1.0%
Mining	44	41	-3	-6.8%
Hotel, Motel	801	664	137	-17.1%
Medical Services	782	853	71	9.1%
Other Services	2,915	2,942	27	0.9%
Government	12,203	11,968	-235	-2.0%
Federal	2,085	2,098	13	0.6%
State	5,522	5,420	-102	-1.9%
Local	4,597	4,450	-147	-3.2%

Totals may not add due to rounding.

1/ 1986 annual average based on 6 months of actual data and 6 months of estimated data.

Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

				Changes From:	
	p/ 1/87	r/ 12/86	1/86	12/86	1/86
Nonag. Wage & Salary	25450	26700	26050	-1250	-600
Construction	800	950	850	-150	-50
Manufacturing	2200	2550	2000	-350	200
Food & Kindred Prod.	350	350	300	0	50
Lumber & Paper Prod.	1650	2000	1500	-350	150
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	1850	2000	1750	-150	100
Trade	4050	4350	4100	-300	-50
Wholesale	300	300	350	0	-50
Retail	3750	4050	3750	-300	0
Finance-Ins. & R.E.	1100	1150	1100	-50	0
Mining, Services & Misc.	4200	4300	4250	-100	-50
Government	11250	11400	12000	-150	-750
Federal	1950	2050	1950	-100	0
State	5050	4950	5550	100	-500
Local	4250	4400	4500	-150	-250

Hours and Earnings

By John Boucher

Current Trends

Two dramatic changes occurred in Alaska's hours and earnings data in the month of January. Average weekly hours and average weekly earnings in the manufacturing industry took a rather sharp tumble. The source of the drop was the lumber and paper products industry, which experienced a shutdown of the Wrangell sawmill for maintenance and a drop off in logging activity as many camps cut down on crew or closed down for the winter.

The other major movement in hours and earnings data came in the wholesale section of the trade industry. Average hourly earnings in wholesale trade dropped more than a dollar an hour according to this months preliminary estimate. The source of this drop was in decreased commissions paid for the month of January. There is a possibility that wholesale trades average hourly earnings estimate for January will increase in the revised estimate as the sample data is supplemented with late reporting firms.

In the lead article for this month (page 1) the annual benchmark of hours and earnings data is discussed. Typically, benchmark hours and earnings data, like benchmarked employment data, is a more reliable estimate because more firms have reported and the sample to make estimates has been supplemented by these late reporting firms. Nineteen-eighty-six was no exception. Since there were revisions to employment estimates at the statewide level, the hours and earnings data would tend to be affected proportionately to the employment revisions.

Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 1/87	R/ 12/86	1/86	P/ 1/87	R/ 12/86	1/86	P/ 1/87	R/ 12/86	1/86
Mining	1260.84	1344.56	1225.66	53.2	56.0	52.2	23.70	24.01	23.48
Construction	959.71	1036.46	925.76	40.7	42.6	41.2	23.58	24.33	22.47
Manufacturing	419.46	495.50	482.25	33.8	38.5	37.5	12.41	12.87	12.86
Food & Kindred Prod	229.41	247.85	244.03	26.8	27.6	32.8	8.56	8.98	7.44
Lumber & Paper Prod	540.14	668.86	628.79	42.1	53.0	44.5	12.83	12.62	14.13
Trans., Comm. & Utilities	535.42	557.00	548.21	34.3	34.9	37.6	15.61	15.96	14.58
Trade	373.29	386.12	387.26	33.3	33.9	33.5	11.21	11.39	11.56
Wholesale	524.14	568.51	541.44	37.6	37.8	37.6	13.94	15.04	14.40
Retail	323.78	329.29	330.88	31.9	32.7	32.0	10.15	10.07	10.34
Finance-Ins. & R.E	396.02	401.36	394.91	34.8	34.6	34.4	11.38	11.60	11.48

Benchmark 1986

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

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Alaska Department of Labor Steve Cowper, Governor, State of Alaska

Alaska's Employment Outlook

Alaska Economic Trends

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Alaska's Employment Outlook

By Edward Eboch

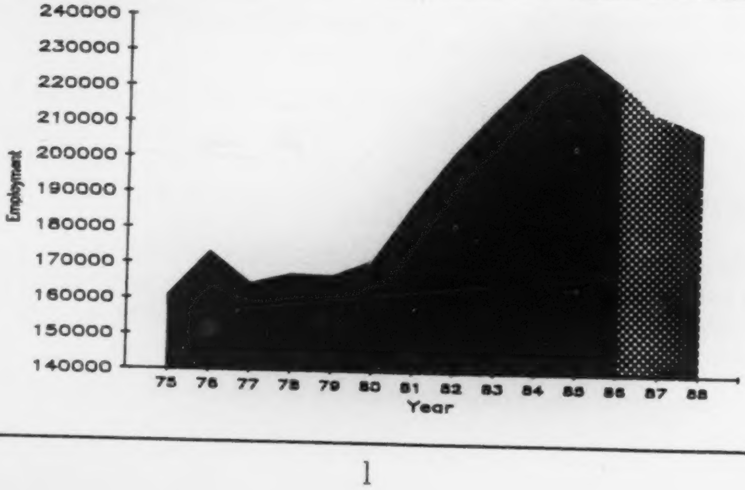
Introduction

Since the early 1970s, Alaska's economy has been driven by the pursuit of oil. Through the rest of the 1980s and well into the 1990s Alaska's economic performance will continue to depend upon world oil markets. While other activities will add employment, they cannot begin to offset the impact of employment cuts in the oil and gas industry and the employment cuts in state and local government that have resulted from declining oil revenues, at least not through the forecast period of 1987 and 1988.

Tourism will fall below the level of 1986. The world EXPO in Vancouver Canada and terrorist activity in Europe resulted in record numbers of tourists coming to Alaska this past year. While current exchange rates bode well for Alaska's tourism industry, now that EXPO has closed and the concern about terrorism has abated, tourism will decline despite current exchange rates which are favorable for the industry.

In addition, the tourist industries in other states and countries have become more competitive. While tourism is expected to be significantly better than in 1985 and to continue to improve throughout the decade, it will not reach the levels of 1986 for several years.

Figure 1
Alaska Employment
1975–1988



Hard rock and coal mining, other promising industries, are unlikely to impact the economy during the forecast period. Even if all the most promising mining ventures—Red Dog, Green's Creek, Quartz Hill, and Beluga Coal—were to come on line during this period, total direct employment would be less than 2,000.

Small amounts of employment are anticipated from the Red Dog and Green's Creek ventures, but full employment levels are not expected until after 1988. Longer term, these mining ventures and other mineral prospects will add significantly to Alaska's employment and will help diversify the economy.

Other projects and proposals to diversify Alaska's economy being considered hold promise in the future, however, they will have little impact on Alaska's economy over the next two years. Two events could make a significant change in the forecast: (1) if the price of oil were to increase to over $20 a barrel on the world markets (and be perceived to remain there) or (2) if contracts for North Slope gas were signed.

On the bright side is the military expansion. The impact of the military on Alaska's economy is often overlooked. Since World War II, Alaska has been recognized for its strategic military importance. The military continues to expand its presence in Alaska providing direct civilian jobs, construction projects, local purchase of materials and services, and an injection of cash into the economy from the spending of military personnel. At this writing, the military plans continued expansion in Alaska.

Assumptions

A forecast is a prediction of what will happen in the future based on an assumed set of circumstances. In any forecast the outcome is often influenced by one or more critical assumptions. There are several key assumptions in this year's forecast in addition to those of a more general nature discussed above.

The price of oil is anticipated to remain in the $15 to $18 range and the state's operating and capital budget is expected to be close to the $1.9 billion level presented to the legislature. The budget for the following year will be no greater than this year's budget.

Besides the loss of employment and population, there will be a greater loss in purchasing power in Alaska. Wages and hours worked in many industries have been declining and there is little in the outlook to suggest improvements during the next two years.

Additional losses in purchasing power are anticipated as local and state government employees are under pressure to make wage and benefit concessions. In addition, hiring will occur at the lower pay levels where possible and duties will be reassigned or transferred to the private sector to cut labor costs. Simple employment multipliers are no longer reliable in estimating the impact of losses in the basic sector.

An important consideration in examining the forecast numbers is when change occur. Annual average numbers do not always appear to match the common perception of what is happening in the employ-

Table 1
Alaska
Industry Employment Forecast
1987-1988

	1986	1987	Percent Change	1988	Percent Change
Nonag. Wage & Salary	222,100	213,200	-4.0	208,300	-2.3
Mining	9,000	8,200	-8.9	8,300	1.2
Construction	13,200	11,100	-1.6	12,100	9.0
Manufacturing	12,400	12,300	-0.1	12,300	0.0
Food & Kindred Products	6,600	6,600	0.0	6,600	0.0
Lumber & Paper Products	2,600	2,600	0.0	2,600	0.0
All Other Manufacturing	3,200	3,100	-3.1	3,100	0.0
Trans. Comm. & Utilities	18,200	18,100	-5.5	17,900	-1.1
Trucking & Whseing	2,300	2,200	-4.3	2,100	-4.5
Water Transport	1,300	1,300	0.0	1,300	0.0
Air Transport	5,400	5,400	0.0	5,400	0.0
Other Trans. Comm. & Utilities	9,300	9,200	-1.1	9,100	-1.1
Trade	44,300	42,600	-3.8	40,800	-4.2
Wholesale	8,100	7,800	-3.7	7,700	-1.3
Retail	36,300	34,800	-4.1	33,100	-4.9
Gen. Mer. & Apparel	5,300	5,100	-3.8	5,000	-2.0
Food Stores	6,000	5,800	-3.3	5,500	-5.2
Eating & Drinking Pl.	13,400	12,700	-5.2	11,900	-6.3
Other Retail Trade	11,600	11,200	-3.4	10,700	-4.5
Finance-Ins. & R.E.	12,700	12,200	-3.9	11,500	-5.7
Services	44,200	42,500	-3.8	40,100	-5.6
Government	68,200	66,200	-2.9	65,000	-2.3
Federal	18,100	18,600	2.8	18,800	1.1
State	20,200	19,200	-5.0	18,800	-2.1
Local	29,900	28,400	-5.0	27,400	-3.5

Assumptions

1. The price of oil will range between $15 and $18 per barrel through the forecast period.
2. The state budget for state fiscal year 1988 will be approximately $1.9 billion.
3. Yen/$ exchange rate will remain favorable to Alaska's export products.

ment market. For example, changes in state and local government employment occur mid-year. In calculating annual averages, the average of the first half of the year and the average for the second half of the year may differ significantly. State government employment averaged 20,600 the first half of 1986 while it averaged 19,800 the second half of 1986, for an annual average of 20,200.

Table 1 gives the statewide employment forecasts by industry while each industry is discussed below in detail. In addition to the statewide employment forecast, there are employment forecasts for the Anchorage/MatSu, Fairbanks, and Southeast regions. The differences in the forecasts result from the timing of the changes, not the level of changes anticipated. The statewide forecast anticipates the decline over the next two years to happen gradually while the regional forecasts expect the declines to occur more rapidly in 1987 and then to diminish in 1988. The forecasts generally agree as to the total impact on employment during the next two years.

Mining

The mining industry is composed of oil and gas extraction, coal mining, metal mining, and nonmetal mining. The oil and gas sector accounts for over 90% of employment in this industry.

The worst is over for the oil industry. Cancellation of exploration activities, reorganization of companies, sales of affiliated mining ventures, and other adjustments to falling oil prices are largely completed. After the precipitous fall in employment that started in February 1986 employment is expected to stabilize in 1987 as the year progresses. By late 1987 additional development activity will result in a small increase in oil and gas extraction employment.

While the short term outlook remains poor, the long term outlook for the oil and gas industry looks very good. The continued development of the North Slope fields, opening of the Arctic National Wildlife Refuge, and the gas pipeline projects all bode well for this industry by the 1990s. Unfortunately, none of these events will help change the two year outlook for oil and gas industry employment.

The metal mining industry has been depressed for some time. With current low world prices for most minerals, the short term outlook for this industry is not attractive. While the Red Dog and Green's Creek mining ventures will proceed, these will have little impact on total metal mining employment before 1989. The same situation exists for the coal mining industry. Expansion of existing mines will not result in much of an increase in employment. With the current difficulty in obtaining coal contracts, additional ventures are unlikely to develop over the next few years.

Employment in the nonmetal mining industry, made up largely of sand and gravel and other mining in support of construction, will depend on how the construction industry fares over the next two years. This sector has suffered cuts as construction has declined to the point that additional cuts in employment will be difficult. With construction projected to decline in 1987, employment in nonmetal mining will remain relatively flat the next two years.

Construction

The construction industry has experienced the greatest loss in employment of any industry since the onset of the downturn. The fall in construction employment began in 1985 before total employment peaked, and the industry's losses have been far greater than any other industry through the end of 1986. Unfortunately the outlook for this industry remains bleak. After suffering losses of 35% in employment from 1984 to 1986 the construction industry is expected to suffer an additional 16% loss in employment in 1987.

For a long time it was assumed that state funded projects were the major contributor to construction employment during the boom. The industry was found to be more diverse than expected. In the study, *Nonresidents Working in Alaska*, it was estimated using 1984 data that approximately 16% of construction employment was related to state funded projects. Oil and gas projects, the military and other federal government projects (Bureau of Indian Affairs, Forest Service, the Corps of Engineers and others) plus private residential, commercial, industrial, and utility activities make up the rest of the demand for construction employment.

In 1987, state funded and oil related projects will decline in value, and because private commercial and residential space is currently overbuilt, little activity will occur in these areas. However, the military and other federal departments are anticipated to have significant construction activities. These projects plus state and local government projects, maintenance and development on the North Slope, and a significantly reduced private residential and commercial sector will still result in construction being over 5% of total employment.

In 1988, construction will be one of the few industries that will rebound from the previous year. A firming of the price of oil will have oil companies increasing development activity on the North Slope by the end of 1987. Increased military construction and a change in the general outlook by the end of 1988 will result in an increase in private sector construction as well.

Manufacturing

The manufacturing industry is the one industry that should fare well over the next two years. The favorable exchange rate is good for both the seafood and wood products businesses.

The seafood industry has gradually expanded into bottomfish and mariculture activities. While relatively small when compared to the traditional seafood activities, their growth over the past few years has been impressive. With the health concerns over red meats, the U.S. market for seafood will continue to expand, offering additional opportunities for Alaska seafood products. The conditions seem good to insure an expanding industry with improving prices.

The wood products industry has returned to making a profit after several years of hard times. Here the elements for success are mixed. The current exchange rate makes Alaska' timber more competitive in its Far East markets; and as long as the U.S. market for northwest timber remains strong, Alaska wood products sales should have less competition from the U.S. Northwest timber producers. This offers potential for growth and already there is increased timber harvesting activity outside the traditional Southeast Alaska Region. The next two years should be relatively good to this industry although employment gains will be small.

The other manufacturing firms are concentrated in newspapers and other printing, oil refining, chemical and allied products, and construction related manufacturing. The construction related firms have suffered declines and will continue to see small losses. The other firms in this sector will gradually reduce their employment as conditions change but the losses will not be significant.

Transportation, Communications, and Utilities

The transportation industry will manage relatively well the next two years. Trucking and warehousing will be down as construction activities and general trade decline. Water transportation employment (which is heavily influenced by the success of the wood products industry and, to a lesser extent the seafood industry) will remain flat over the next two years. Air transportation will suffer from the general economic decline but should benefit from both tourism and the seafood industry success.

There will be slight declines in the other transportation, communications, and utilities sector which includes school buses and other bus services, pipelines, radio and television, telephone, telecommunications, and other utilities and transportation services. Many of these firms provide basic services where it is difficult to cut employment beyond that already made. However, some slight losses are expected.

Trade

The loss of purchasing power by residents of Alaska will have a later and greater impact on the trade industry than has been anticipated previously. The trade and services industry is unaware of how important local resident purchases are to their businesses. While a loss in employment of 10% from the highs of 1985 is projected the loss in income will be greater—perhaps as much as 20%.

While tourism will be strong, although less than last year, many retail outlets will begin to understand the impact of the loss of local purchasing power as 1987 continues. The trade industry is more sensitive to declines in income than to declines in employment, since employment includes a count of nonresidents. By the second half of 1987 layoffs will increase and stores will close in the retail trade sector.

Wholesale trade will be impacted less over the next two years than will retail trade. Wholesale trade employment has declined significantly since 1985, largely those losses have been related to construction. Additional losses are forecast for wholesale trade, but as the economy declines these losses will be small relative to losses experienced elsewhere.

Finance, Insurance and Real Estate

In 1986, losses in real estate were largely offset by gains in the banking, insurance and other financial service sectors. We are now seeing losses in employment spread to other areas of this industry. Additional losses in the real estate sector are anticipated for 1987 with some strengthening of this market towards the end of 1988. Losses in the other financial sectors will increase as 1987 progresses.

Several banks and savings and loans in Alaska are in trouble and will either close or be merged to stronger Alaska banks or to outside banks. Other banks will have to consolidate their operations and trim their workforce to remain viable. With the loss in discretionary income, less money will be available for investments. The result will be an increasing decline in employment in the finance, insurance, and real estate sectors into 1988 as firms in this industry adjust to the realities of lesser income for financial services.

Services

The service industry has experienced losses of employment in sectors largely related to the decline in construction, such as architects and engineers. The other areas of services are beginning to feel the impact of Alaska's recession after several years of robust growth. The losses in these other areas of services will continue to intensify as firms and individuals cut nonessential services.

Business and government travel has declined as reflected in the year to year losses in hotel, motel and related services. Additional losses in hotel and motel employment are anticipated this year because of a reduction of activity in the oil industry, cuts in the states budget, and a slight decline in tourism.

Medical services have continued to increase even as the economy declined. As the population drops in 1987 and the loss in benefits and reduced incomes are felt, the demand for these services will be reduced. Hospitals, clinics, medical, dental and other health services (especially those dependent on state funding support) will continue to cut employment as they adjust to the difficult economic times.

As incomes drop local residents will cut back or delay the purchase of local services. Beauty shops, laundry and dry cleaning establishments, automotive repair, shoe repair shops, motion pictures, bowling alleys, the theater, and other personal and recreation services firms dependent on the local consumer will close or be forced to reduce employment.

Finally, business will reduce their use of advertising, commercial art, cleaning and maintenance, management consulting, equipment rental, educational services,membership organizations, accounting and auditing, and other business services while they try to weather the economic downturn.

Government

There will be a dramatic decline in government employment as state and local governments are forced to cut expenditures. This comes on top of already significant cuts in employment at both levels of government during 1986.

This decline is significant to Alaska and its communities because government's impact is much like that of a basic industry. Individuals and businesses in the state pay only a small portion of the cost of government.

To what extent communities are willing to see education, social services, road maintenance, and other services decline is uncertain. At the time of this writing, spending cuts appear more likely than an increase in local taxes or the adoption of a state income tax or other state taxes. As the impact of these cuts is felt, there will be additional pressure to increase local and state taxes; however, any impact of these taxes will not be felt until late 1988. As a result both levels of government will be forced to cut employment through 1988.

The federal government will continue to expand its presence in Alaska. Military expansion will be the primary source of the growth in federal civilian employment; however, this growth in federal employment will not be sufficient to offset the loss in state and local government.

Conclusion

Without a dramatic turnaround in the price of oil or the signing of contracts for delivery of North Slope gas Alaska's economy will continue to suffer employment losses through 1988. The impact of less spending by oil companies, reductions in state direct spending, and cutbacks in grants for education and community operations mean additional losses in employment over the next two years. This follows a loss of 3.7% in employment from 1985 to 1986.

The trade; finance, insurance, and real estate; and service industries were built on the premise that expansion would continue. So far they have been slow to contract as the economy has lost employment and people have gradually change their consumption habits.

Good news about consumer spending will be hard to find over the next two years. The combined effect of losses in employment and population, reduced income of those working, and the uncertainty created by the economic downturn will result in the reluctance of consumers to spend on discretionary items.

In addition, there will be a loss of purchasing power far greater than the loss in employment as wage concessions are made, more part time help is hired, and average hours worked decline. This loss of income will impact the secondary industries heavily in late 1987 and 1988. As a result these industries will suffer a greater loss in percent of employment over the next two years than the loss in total employment.

The only good news for Alaska is in the manufacturing industry where the wood products and seafood processing sectors will continue to increase employment. This will have little impact on the overall direction of the economy, however, because there is nothing on the horizon that will begin to offset the losses as a result of the contraction in the oil industry and the cuts in government spending.

Alaska's economic recession will continue over the next two years, causing dislocation and hardship for many of its residents. The longer term outlook is for a turn-around by 1989-1990 as oil companies begin to increase exploration and development efforts (with improved oil prices), several mining ventures begin to add employment, and the expanded military presence continues to make a contribution to the economy.

Anchorage Employment Forecast: 1987-1988

By Greg Huff

On the horizon for Anchorage are employment declines of 5.0% in 1987 and 1.4% in 1988. This follows a 4.6% decline in 1986. Although the decline in total employment is as great from 1986 to 1987 as from 1985 to 1986, the industry mix of employment losses is changing. The most significant change is the decline in construction employment losses and the increase in government employment losses. Trade replaces construction as the industry with the greatest loss in employment in 1987, and government replaces trade in 1988.

The most critical variables in this forecast are oil prices and the state revenue/budget situation. This forecast assumes that the state fiscal year (SFY) 1987 budget deficit is solved, and that Anchorage's portion ($36.5 million) of the frozen $163 million in capital project funds for SFY 1987 is released. In addition, oil prices are assumed to remain between $15 and $18 per barrel, and the SFY 1988 and SFY 1989 state budgets are in the $1.9 billion range—with both capital and operating portions declining and the capital spending share returning to 17% to 20% of the total budget.

Government

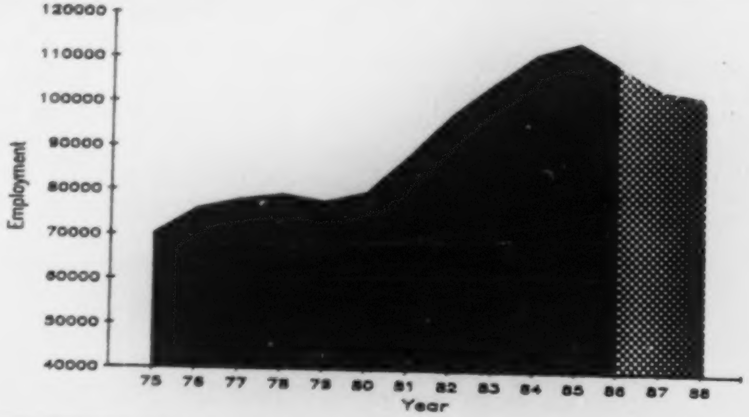
Although oil prices began falling in 1981 they did not drastically impact state and local government employment until the second half of 1986 (the beginning of SFY 1987). Layoffs in state and local government will continue at a moderate pace through the first half of 1987. The SFY 1988 budget (beginning July 1987) will compound the rate of employment declines, in both educational and noneducational branches of government. Declines will continue during SFY 1989 (July 1988 to June 1989) but employment losses will be less severe.

Federal government employment and spending will continue to be a major factor in Anchorage's economy. Federal government employment will continue to grow, offsetting some of the state and local government losses during the forecast period, but the growth will be modest.

Mining

Unlike government, the mining industry, comprising primarily oil and gas firms, responded quickly to oil price declines. By spring 1986, layoffs in the oil field services firms were widespread and deep; however, by 1987 most of the cuts were over. The need for additional

Figure 1
Anchorage Employment
1975–1988



support staff for expanded oil field operations on the North Slope will help Anchorage oil and gas employment recover in the last half of 1987 and result in slight employment growth in 1988.

Construction

Construction employment is forecast to decline less each successive year through 1988. The forecast assumes that state capital spending continues to fall but the residential building sector will hit bottom in 1987, particularly new construction, remodeling, and maintenance activity. In addition, employment declines in heavy construction (construction work such as highway, water, sewer, and bridge construction) will remain stable in 1987 and decline only moderately in 1988.

The larger heavy construction projects planned for 1987 include the continuation of the Eklutna Water Project, start-up of new municipal land fill, the widening of Glenn Highway from Muldoon to Highland Road, and the second phase of the Dimond Boulevard improvements to Jewel Lake Road. Indeed, if the Rabbit Creek/DeArmoun interchange is approved in 1987, the outlook for the heavy construction sector is brighter.

Most employment losses in construction will be in the commercial building sector. No projects are on line to replace the activity created by the construction of the downtown mall and parking garage, International Airport terminal improvement and garage, the Performing Arts Center, and Point Woronzof waste water treatment plant. Of these

Table 1
Industry Employment Forecast
Anchorage
1987-1988

	1986	1987	Percent Change	1988	Percent Change
Nonag Wage & Salary	109,300	103,850	-5.0	102,450	-1.4
Mining	3,600	3,200	-11.1	3,250	1.6
Construct	7,300	6,300	-13.7	5,950	-5.6
Manufacture	2,600	2,500	-3.8	2,500	0.0
Trans. Comm. & Utilities	9,500	9,300	-2.1	9,200	-1.1
Trade	26,300	24,800	-5.7	24,550	-1.0
Wholesale	6,100	5,800	-4.9	5,750	-0.9
Retail	20,200	19,000	-5.9	18,800	-1.1
Finance-Ins. & R.E.	8,300	8,100	-2.4	8,100	0.0
Service & Misc.	25,100	23,950	-4.6	23,700	-1.0
Government	26,600	25,700	-3.4	25,200	-1.9
Federal	10,200	10,400	2.0	10,500	1.0
State	7,300	6,750	-7.5	6,450	-4.4
Local	9,100	8,550	-6.0	8,250	-3.5

Assumptions

1. Oil prices will range between $15 and $18 a barrel through the forecast period.
2. The state's fiscal year 1987 budget deficit is solved and that frozen capital project funds for Anchorage are released.
3. The state's fiscal year budgets for 1988 and 1989 are approximately $1.9 billion.
4. Yen/$ exchange rate will remain favorable to Alaska's export products.

projects, the bulk will be completed during the second half of 1987 except for the Performing Arts Center which is expected to be completed by mid-1987.

Federal construction dollars are likely to increase slightly, and at worse remain stable during the forecast time frame. The net effect of these changes point to Anchorage construction employment levels in 1988 comparable to the levels in 1981, though representing a smaller share of total employment (5.7% versus 6.7%).

Secondary Industries

A recovering oil and gas industry and bottoming out of the construction industry in 1988 will have a positive impact on the secondary sectors in 1988. Services is forecast to decline only 1.0% in 1988 after falling 4.6% in 1987. Trade will have a similar reprieve, falling 1.0% in 1988 after a 5.7% decline in 1987. Finance, insurance, and real estate will show signs of recovery and grow modestly in 1988.

The total purchasing power of Anchorage residents will remain depressed below previous years because population is expected to fall in 1987 and "real" take-home pay to decline. Although population is expected to grow in 1988 as natural increases (births less deaths) offset outmigration, the number of wage earners will decrease resulting in less total income spent in the Anchorage economy.

On the positive side, tourism in Alaska is expected to grow during the forecast period, helping to offset the decline in the purchasing power of Anchorage residents. Anchorage lies between many of Alaska's most popular tourist areas and is the transportation hub for much of Alaska (33% of all the nights spent in Alaska by tourist are spent in Anchorage).

Thus, tourist related industries can expect increased activity in 1987 and 1988 and the population driven industries (particularly those sensitive to an increased number of young children) will experience increases. Firms that are not sensitive to tourism or to increases in the number of young children but that are more responsive to total income in the economy will not grow.

Conclusions

The negatives outweigh the positives during the forecast horizon—construction hits bottom, total income falls, and state and local government employment and spending continues to decline, pushing the support or secondary industries employment down through 1988.

A mild recovery in 1989? This is a likely scenario beyond 1988, but at a modest pace compared to the 1980-85 period. Growth can occur even at oil prices between $15 and $20 per barrel if state budgets remain in the $1.7 to $1.9 billion range. It is clear that in the future Alaskans will need to adjust to less state spending. The mix and level of that spending will determine the direction and the magnitude of any changes in the Anchorage economy.

Fairbanks Employment Forecast: 1987-1988

By Neil Fried

Employment losses will continue to plague the Fairbanks economy in 1987, however, signs of improvement will begin to appear in 1988. Fairbanks' employment is forecast to fall 4.3% in 1987 and .6% in 1988. (See table 1 for an industry breakdown of employment changes forecast for 1987 and 1988.) This is a far cry from the 6.7% average annual growth rate during the first five years of the 1980s, but it is an improvement over the 5% decline in employment in 1986.

Military Expansion

Even the arrival of the first increment of a new light infantry brigade will not prevent employment losses in Fairbanks in 1987. By late 1988 the employment outlook will begin to brighten because of the cumulative economic effect of the deployment of the light infantry brigade and related construction activities.

The deployment of the light infantry brigade will not be a panacea to Fairbanks' economy in 1988. It will not boost state revenues, replace all the construction jobs lost in Fairbanks' economy last year, nor pro-

Figure 1
Fairbanks Employment
1975 – 1988

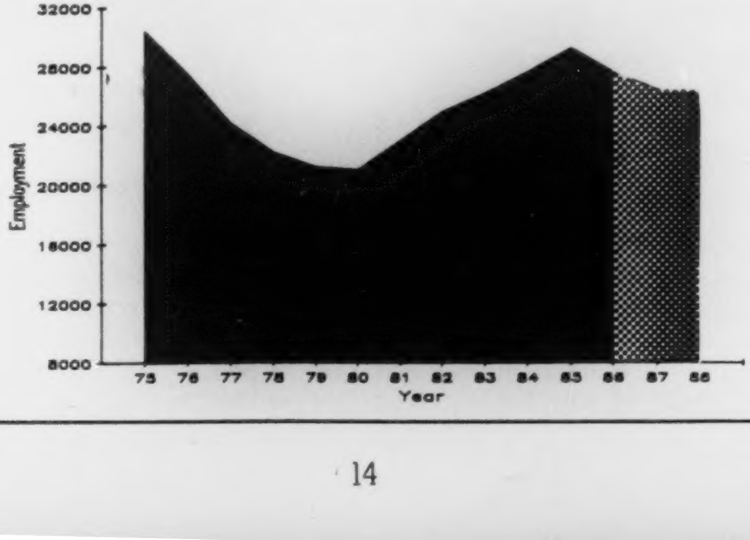


Table 1
Industry Employment Forecast
Fairbanks
1987-1988

	1986	1987	Percent Change	1988	Percent Change
Total	27,700	26,500	-4.3	26.350	-0.6
Mining	100	100	0.0	100	0.0
Construction	1,800	1,650	-8.3	1,750	6.0
Manufacturing	600	600	0.0	600	0.0
Trans. Comm. & Util.	2,700	2,600	-3.7	2,600	0.0
Trade	5,900	5,550	-5.9	5,500	-0.9
Wholesale	900	850	-5.6	850	0.0
Retail	5,000	4,700	-6.0	4,650	-1.1
Finance-Ins. & R.E.	1,100	1,000	-9.1	1,000	0.0
Services & Misc.	6,000	5,700	-5.0	5,650	-0.9
Government	9,600	9,300	-3.1	9,150	-1.6
Federal	2,900	3,050	5.2	3,150	3.3
State	3,900	3,650	-6.4	3,500	-4.1
Local	2,800	2,600	-7.1	2,500	-3.8

Assumptions

1. The price of oil will remain in the $15-$18 per barrel price range during the forecast period.
2. The 6th Light Infantry Brigade will be deployed within the time table provided by the Department of Defense on February 23, 1987: 825 soldiers will arrive in in FFY 87 and 789 in FFY 88 (the federal fiscal year runs from October to September), that 1,837 dependents will accompany the soliders and 150 new civilian jobs will be created to support the brigade during the 1987-1988 period.
3. Construction expenditures will reach $112 million on Fort Wainwright in FFY 87 and will exceed $100 million in 1988.
4. The state budget for SFY 88 will be approximately $1.9 billion.

vide the necessary revenues to local government to prevent further local government layoffs.

The light infantry brigade will, however, help cushion the fall in 1987, and it will prevent employment from falling as much as it otherwise would in 1988. Without the light infantry brigade, employment would fall as hard in 1987 as it did in 1986, and little relief would be on the horizon in 1988.

Industry Changes

Although the total employment losses in 1987 are forecast to be slightly smaller than they were in 1986, more industries will be affected. In 1986 the construction industry was responsible for most (68%) jobs lost in Fairbanks while other industry losses were small. In 1987 construction will account for a smaller share, and the secondary sector and local and state government will account for a larger share of the losses.

Losses in state and local government employment will grow in 1987 and will continue to grow into 1988 as the impact of a falling state operating budget is fully felt. This trend will gain momentum in July 1987 when the state's fiscal year (SFY) 1988 budget begins.

Services and trade will be affected by these declines. Additionally, a decline in the area's income as a result of past declines in construction activity will catch up with services and trade. Sluggish North Slope activity and an overall slowdown in most other northern and interior communities, which depend on Fairbanks as a service, trade, and transportation hub, will also impact Fairbanks' secondary sector.

Construction

Construction employment will not rebound in 1987, but the hefty construction budget of the military should prevent it from falling by double digit levels. Residential and commercial construction will be down and state funded public construction will fall; however, the 1987 military construction budget should help offset these losses.

If the projected military budget for the federal fiscal year (FFY) 1988 comes to pass, construction employment would increase in 1988. (The federal fiscal year runs from October through September.) The construction industries share of total employment will remain below historical levels. In 1986 construction's share of Fairbanks' total employment fell to a record low of 6.5%, and construction is not expected to increase its share during the forecast period.

Tourism—A Mixed Story

That segment of the visitor industry that caters to visitors who come to Alaska for pleasure (64% of all visitors) will continue to grow. Fairbanks is becoming an increasingly popular spot for both American and foreign travelers, and this trend will continue during the forecast period. The weak U.S. dollar should also provide an additional incentive for domestic and foreign tourists to travel to Alaska.

Visitors combining business and pleasure also grace the state each year—approximately 17% of all visitors. Nineteen percent of visitors come to Alaska for business purposes only. Given present business conditions, this segment of the visitor industry is likely to fall off until the Fairbanks economy begins to pick up again.

Federal Government-The Bright Spot

Federal government employment is one of the few sectors of the economy expected to grow during the forecast period. The Department of Defense estimates that 150 civilians will be needed to provide support to the brigade during the next two years.

These estimates do not include civilian employment necessary for nonappropriated activities such as the post exchange system. While there are no immediate plans to hire more personnel in this area, it will eventually be necessary as the additional soldiers and their dependents put pressure on these services. If past trends hold at Eielson AFB, the number of civilians working there is expected to grow modestly.

Conclusion

The skittishness of oil prices makes any forecast of Alaska's economy tenuous at best, however, given the assumptions, table 1 gives the expected employment levels for 1987 and 1988. The bottom line is that Fairbanks will see employment decline. Job opportunities will be scarce and competition will be fierce, but, unlike most of the rest of the state, Fairbanks has secured some relief during these trying economic times.

Southeast Employment Forecast 1987-1988

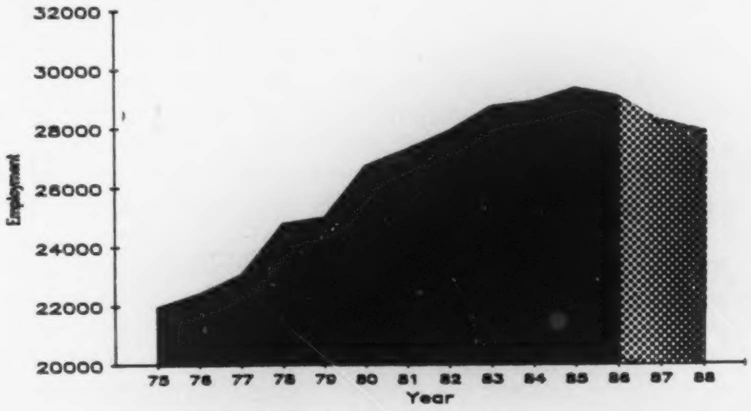
By John Boucher

The outlook for Southeast Alaska employment through 1988 projects a drop in employment of more than 4% from 1986 to 1988. The trend of declining employment, which manifested itself in the first quarter of 1986, will continue throughout the forecast period. Industries which have been sources of employment growth in the region, especially government, trade, and services, will experience employment losses during the next two years. With the exception of the manufacturing industry, every sector of the Southeast economy is forecast to lose employment through 1988.

Employment drops will occur predominantly in 1987 with a gradually slowing rate of decline through the end of 1988. Employment is projected to drop 2.8% in 1987 and then 1.4% in 1988. The most prominent reason for the drop is the rapid fall off in revenue to the State of Alaska from North Slope oil fields and the after shocks that will result.

The oil revenue decline has put state government into an unpre-

Figure I
Southeast Alaska Employment
1975 – 1988



Industry Employment Forecast
Southeast Alaska
1987-88

	1986	1987	Percent Change	1988	Percent Change
Nonag. Wage & Salary	29,044	28,230	-2.80%	27,847	-1.36%
Construction	1,146	1,053	-8.12%	1,030	-2.18%
Manufacturing	3,655	3,711	1.53%	3,720	0.24%
Food & Kindred Prod.	1,049	1,060	1.05%	1,071	1.04%
Lumber & Paper Prod.	2,402	2,450	2.00%	2,450	0.00%
All Other Mfg.	205	201	-1.95%	199	-1.00%
Trans. Comm. & Utilities	2,125	2,094	-1.46%	2,092	-0.10%
Trade	4,465	4,397	-1.52%	4,349	-1.09%
Wholesale	332	322	-3.01%	324	0.62%
Retail	4,132	4,075	-1.38%	4,025	-1.23%
Finance-Ins. & R.E.	1,187	1,174	-1.10%	1,163	-0.94%
Mining, Services & Misc.	4,500	4,447	-1.18%	4,447	0.00%
Government	11,968	11,354	-5.13%	11,046	-2.71%
Federal	2,098	2,075	-1.10%	2,050	-1.20%
State	5,420	4,979	-8.14%	4,746	-4.68%
Local	4,450	4,300	-3.37%	4,250	-1.16%

Asumptions

1. Oil Price will range between $15/18/barrel through forecast period.
2. Yen/$ exchange rate will remain favorable to forest products industry.
3. Green's Creek makes contribution to employment in 1988.
4. Quartz Hill does not make employment contribution.

cedented fiscal crisis, and employment and/or wage cuts in state and local government are occurring and will continue to occur. In Southeast Alaska, this means trouble for the region's economy. In 1986 more than one third of all nonagricultural employment and wages were in state and local government.

Aside from the economic effects that government spending and employment cuts have already had, conservative spending and saving patterns brought about by the uncertainty of the future of the economy are having a more profound effect in the secondary industries than is warranted by employment losses to date. For example, houses are placed on the market not because the owners need to sell but because they anticipate that house values will fall. Major purchases are put off because of the uncertainty of future employment and/or wage levels. Once the future course of the economy becomes more evident, the uncertainty factor will subside.

Assumptions

In any economic forecast assumptions are made which are the founda-

Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 2/87	R/ 1/87	2/86	P/ 2/87	R/ 1/87	2/86	P/ 2/87	R/ 1/87	2/86	P/ 2/87	R/ 1/87	2/86
Alaska Statewide	242,892	236,383	246,892	29,034	27,569	29,841	12.0	11.7	12.1	213,858	208,814	217,051
Anch.-MatSu Region	130,404	12,7814	134,124	13,009	12,288	13,242	10.0	9.6	9.9	117,395	115,526	120,882
Anchorage Borough	114,832	112,600	117,945	10,068	9,391	9,991	8.8	8.3	8.5	104,764	103,209	107,954
MatSu Borough	15,572	15,214	16,179	2,941	2,897	3,251	18.9	19.0	20.1	12,631	12,317	12,928
Gulf Coast Region	25,263	24,200	25,381	4,138	3,987	4,061	16.4	16.5	16.0	21,125	20,213	21,320
Kenai Peninsula Bor	15,748	15,043	15,730	3,144	2,983	3,009	20.0	19.8	19.1	12,604	12,060	12,721
Kodiak Island Bor	5,627	5,481	5,770	363	444	457	6.5	8.1	7.9	5,264	5,037	5,313
Valdez-Cordova	3,888	3,676	3,881	631	560	595	16.2	15.2	15.3	3,257	3,116	3,286
Interior Region	37,298	36,497	37,719	6,049	5,630	6,276	16.2	15.4	16.6	31,249	30,867	31,443
Fairbanks North Star Bor	32,076	31,441	32,498	4,943	4,640	5,196	15.4	14.8	16.0	27,133	26,801	27,302
Southeast Fairbanks	2,224	2,167	2,294	402	367	461	18.1	16.9	20.1	1,822	1,800	1,833
Yukon-Koyukuk	2,998	2,889	2,927	704	623	619	23.5	21.6	21.1	2,294	2,266	2,308
Northern Region	7,880	7,513	7,945	919	780	855	11.7	10.4	10.8	6,961	6,733	7,090
Nome	3,068	2,839	3,108	423	282	415	13.8	9.9	13.4	2,645	2,557	2,693
North Slope Borough	2,714	2,654	2,760	153	176	151	5.6	6.6	5.5	2,561	2,478	2,609

Southeast Region	31,330	30,237	31,254	3,927	4,010	4,353	12.5	13.3	13.9	27,403	26,227	26,901
Haines Borough.........	888	873	912	148	165	185	16.7	18.9	20.3	740	708	727
Juneau Borough.........	13,235	12,714	13,240	1,090	1091	1,319	8.2	8.6	10.0	12,145	11,623	11,921
Ketchikan Gateway Bor	6,232	6.082	6,362	712	799	943	11.4	13.1	14.8	5,520	5,283	5,419
Pr. of Wales-Outer Ketch	2,401	2,339	2,352	531	549	516	22.1	23.5	21.9	1,870	1.790	1,836
Sitka Borough	3,633	3,426	3,669	368	301	464	10.1	8.8	12.6	3,265	3,125	3,205
Skagway-Yakutat-Angoon	1,599	1,535	1,521	427	413	370	26.7	26.9	24.3	1,172	1,122	1,151
Wrangell-Petersburg ...	3,342	3,268	3,198	651	692	556	19.5	21.2	17.4	2,691	2,576	2,642
Southwest Region	10,717	10,122	10,469	992	874	1,054	9.3	8.6	10.1	9,725	9,248	9,415
Aleutian Islands	2,707	2,586	2,587	110	116	72	4.1	4.5	2.8	2,597	2,470	2,515
Bethel	4,243	4,014	4,229	384	344	493	9.1	8.6	11.7	3,859	3,670	3,736
Bristol Bay Borough	438	413	419	67	61	60	15.3	14.8	14.3	371	352	359
Dillingham	1,950	1,813	1,874	230	178	209	11.8	9.8	11.2	1,720	1,635	1,665
Wade Hampton.........	1,379	1,296	1,360	201	175	220	14.6	13.5	16.2	1,178	1,121	1,140

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

tion upon which the forecast is built. When last years forecast was made one assumption was that the price of oil would not fall below $20 a barrel through the forecast period. Unfortunately, this was a faulty assumption and that forecast was outdated practically overnight. Such is the tenuous nature of forecasting. With that in mind the assumptions for the Southeast Alaska employment forecast follow.

Oil prices will not change during the forecast period sufficiently to dramatically affect the state's revenue picture. A price range of $15-18 per barrel was assumed. The yen/dollar exchange rate, which has swung dramatically in favor of Alaskan export goods such as forest and fish products will continue to remain favorable throughout the forecast period. Green's Creek mine, one major project on the horizon for the Southeast economy, will make an increasing contribution to employment. Quartz Hill, another major project for Southeast Alaska, will make no significant contribution to employment during the forecast period.

Construction

Southeast Alaska construction employment has fallen steadily since it hit an all-time high in 1983 of 2,017. In 1987 and 1988 construction employment will continue to fall but not at the precipitous rate of 31.2% that occurred in 1986. The 31.2% drop occurred on the heels of drops of 10% and 8% in 1984 and 1985.

Since 1975, construction employment has ranged between 3.8% and 7.0% of total employment in the region. Typically, construction employment has been 4% to 4.5% of total employment in an average year and 5% to 6.0% of total employment in an active year. Nineteen eighty-six was a relatively slow year in Southeast construction after five straight years of above average performance. The 3.9% share of total employment registered in 1986 was the lowest since 1979.

The outlook for the construction sector in the next two years is grim. Private residential and commercial construction have slowed dramatically compared to the last several years. State and local government construction will also decrease due to the lack of state funds.

The tremendous amount of work that was done in the early 1980s has created excess capacity, especially in residential and commercial buildings. Construction employment is forecast to fall 8% in 1987 and another 2% in 1988. These two years will be construction's lowest share of total employment since 1975, approximately 3.6% of total employment in both years.

Manufacturing

Southeast Alaska's manufacturing sector was the bright spot in the region's economy during 1986, in particular the rebound of Alaska's forest products industry. In 1986, the forest products industry increased employment by almost 20%. Most of the increase was in the logging and pulp mill sectors.

The rebound in the Southeast wood products industry is attributed to two factors. First, cost-cutting measures in the finished products sector (sawmills and pulp mills) were instituted to decrease costs of the final product. Second, the yen/dollar exchange rate has made Alaskan forest products much less expensive in their primary market of Japan. These two factors have led to a much more competitive forest products industry.

During 1987 a 2% growth in employment followed by a leveling off in 1988 is forecast for the forest products industry. The reason for the slowdown in employment growth is that the sawmills and pulp mills, which experienced closings on a regular basis every year since 1981, had no major shutdowns in 1986; therefore, if 1987 and 1988 hold to this pattern there should be no significant change in employment. The logging sector, however, is expected to experience some growth in 1987, accounting for most of the growth in the industry during the next two years.

The food and kindred products sector of manufacturing has been experiencing slow steady expansion during the past few years and this is expected to continue in 1987 and 1988 with growth of about 1% in both years. Southeast Alaska processors have been experimenting with fish products, which could provide them with some activity during the off-season; however, the lion's share of employment will continue to be tied to the success of the salmon catch. Assuming marginal success in the off-season products such as shellfish and bottomfish and continued good harvests in the salmon season, this industry looks stable throughout the forecast period.

Transportation, Communication and Utilities

The transportation industry in Southeast Alaska has four major sectors; air transport, water transport, communication and utilities, and other transportation. In 1986 three of the four sectors, communication and utilities being the exception, experienced slight employment growth. In 1987 the transportation industry is expected to lose slightly more than 1% of its employment and then level out in 1988.

Of the four sectors in this industry only water transportation is expected to exceed 1986's performance while the other three are expected to fall off slightly.

One reason for the success of this industry in 1986 was the tremendous increase in tourism related transportation during the summer months. If early indications are a barometer, 1987 does not look to repeat 1986's performance especially in regard to number of tour boat passengers.

In 1986 Southeast Alaska had two things going for it, the Expo in Vancouver B.C., and a fear of overseas travel due to terrorist incidents. Without these two stimulants the tourist traffic will probably drop off a little, although it will continue to make a solid contribution to the region's transportation industry.

In addition to the anticipated drop off in tourist related transportation, the portion of the transportation industry that caters to the local population is expected to decline also. The communications and utilities sector of the transportation industry began to lose employment in 1986 as the region's population began to drop off. This trend is expected to continue throughout the forecast period.

Government

The government sector will be the largest loser of employment during the next two years. By 1988 it is expected that there will be a loss of more than 900 jobs in the Southeast economy due to government cutbacks. Most of the losses in state and local government employment will occur in the third quarter of 1987 as state and local government budgets adjust to the state's current revenue picture. Employment losses that occur after the new state fiscal year begins in July 1987 will also carry over into 1988 employment totals.

While federal government spending, particularly military spending, will be a source of new employment for some parts of the state in the next several years, Southeast Alaska will not benefit from the additional spending.

The U.S. Coast Guard is scheduled to undergo a reorganization during the forecast period which will reduce civilian military employment in the region. The U.S. Forest Service, the largest federal agency in the region, will continue to cut back employment in the area. Overall, federal government employment is forecast to decline at a rate of slightly over 1% a year throughout the forecast period.

Secondary Industries

The secondary industries of trade; mining; services and miscellaneous; and finance, insurance, and real estate will perform slightly better than the overall economy but they will still lose employment throughout the forecast period.

Mining, services and miscellaneous employment is expected to decline during 1987 as the services portion responds to lower wages and employment cuts in the basic industries of government and construction. In 1988 most of the employment losses in the services portion of mining, services and miscellaneous will be offset by employment gains at the Green's Creek mine.

Trade employment will be lost predominantly in the retail sector, especially establishments relying on higher disposable income levels to sustain a steady business. Eating and drinking establishments and car dealerships are examples of businesses that would be hurt by a lower level of disposable income.

Finance, insurance, and real estate employment is anticipated to follow the same trend as the other secondary industries, falling at a rate of slightly more than 1% per year. Financial institutions such as banks and credit unions that are already experiencing difficulty in the current economy will continue to do so during the next two years.

One sector of the finance-insurance and real estate industry which may buck the industry trend is Native corporations. Since many native corporations fortunes are linked to the success of natural resource industries such as timber and fishing, they may experience some employment growth if the manufacturing industry remains healthy during the next two years.

Alaska

By Ed Eboch

The revised January and February preliminary employment data suggests that the economy is improving from the deep downturn of 1986. Nonagricultural wage and salary employment is up over the month. The unemployment rate and the number of unemployed for February 1987 (center insert) is down from February 1986. Also, there is an air of optimism that OPEC will be able to maintain the $18 price for oil and that this higher price will somehow reverse the downturn.

The nonagricultural wage and salary employment numbers are not only up over the month but they are up from where they were at the end of 1986. In the first two months of 1986 there was an average of over 10,000 less jobs than the previous year. But in the first two months of 1987 the year-to-year losses are closer to 8,000 below the previous year.

One should not be misled by the apparent improvement. Alaska's economy seems to be drifting aimlessly, awaiting the outcome of budget decisions by the legislature and the governor. Once the state's budget is finalized and the programs and communities affected are identified, continued losses in employment can be expected.

Review of the Data

A comparison of November and December 1986 employment to the last two months of 1984 and of January and February 1987 employment to the first two months of 1985, shows that the economic outlook has not improved. The improved employment statistics are explained by the drop in the workforce as people leave Alaska or quit looking for jobs and by the timing of previous declines in employment.

The decline in employment began in earnest at the beginning of 1986. January and February 1986 was the first month that employment was not above the year-ago numbers in the 1980s. In January 1987 employment was the same as January 1985, but in February 1987 it was 1,500 below February 1985. The decline in the economy continues, albeit at a slower pace.

Over-the-year losses are widespread. Nearly every sector of every industry has suffered employment losses from the previous year. The exception is manufacturing, as the lumber and fish processing sectors are starting 1987 with impressive over-the-year gains. Unfortunately, these gains do not begin to offset employment losses in state and local government and they barely offset government losses in those

Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

				Changes From:	
	p/	r/			
	2/87	1/87	2/86	1/87	2/86
Nonag. Wage & Salary	206,300	204,300	214,500	2,000	-8,200
Mining	8,300	8,200	9,900	100	-1,600
Construction	9,400	9,600	10,600	-200	-1,200
Manufacturing	9,200	8,000	8,700	1,200	500
Food & Kindred Prod.	4,000	3,200	3,700	800	300
Lumber & Paper Prod.	2,300	1,900	1,900	400	400
All Other Mfg.	2,900	2,900	3,100	0	-200
Trans. Comm. & Utilities	16,800	16,900	17,200	-100	-400
Trucking & Whseing.	1,900	2,000	2,100	-100	-200
Water Transportation	1,000	900	1,000	100	0
Air Transportation	5,100	5,300	5,200	-200	-100
Other Trans. Comm. & Utilities	8,800	8,700	8,900	100	-100
Trade	40,400	41,200	42,600	-800	-2,200
Wholesale	7,300	7,300	8,200	0	-900
Retail	33,100	33,900	34,400	-800	-1,300
Gen. Mer. & Apparel	4,900	5,100	4,900	-200	0
Food Stores	5,700	5,900	5,600	-200	100
Eating & Drinking Pl.	12,000	12,200	12,600	-200	-600
Other Retail Trade	10,500	10,700	11,300	-200	-800
Finance-Ins. & R.E.	12,200	12,200	12,500	0	-300
Services & Misc.	41,900	41,800	43,500	100	-1,600
Government	68,100	66,400	69,500	1,700	-1,400
Federal	18,300	18,400	17,500	-100	800
State	19,400	18,200	20,700	1,200	-1,300
Local	30,400	29,800	31,300	600	-900

Prepared in cooperation with the U.S. Bureau of Labor Statistics.

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date 1986.

p/ Denotes preliminary estimates.

r/ Denotes Revised estimates.

communities that directly benefit from timber and fish processing employment.

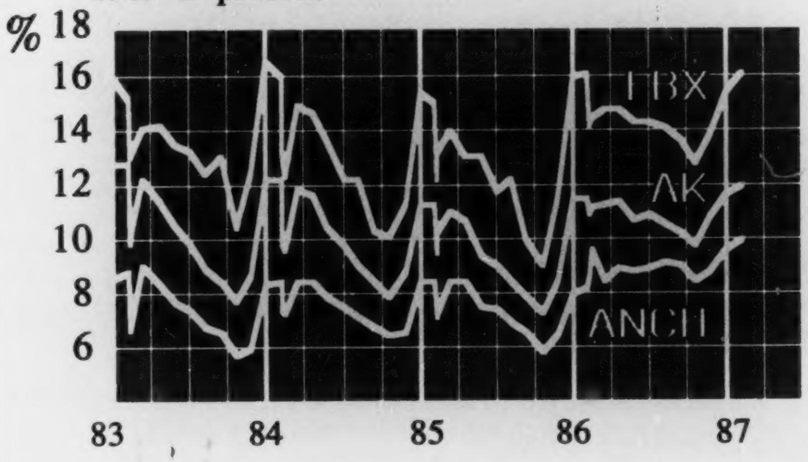
Even the improvement in hours worked (Hours and Earnings Table), usually a good indicator of employment trends, is misleading. Average hours worked is up over the year for mining and construction. This increase, however, is not accompanied by an increase in average hourly earnings nor is it evidence of an employment turn-around.

The combination of oil company and state and local government cuts in operating and capital budgets have now impacted nearly every area of the economy. In early 1986 the losses were restricted to construction and construction related firms. Now, year-to-year losses in employment are appearing in every sector of the economy as adjustments are made to the new economic realities.

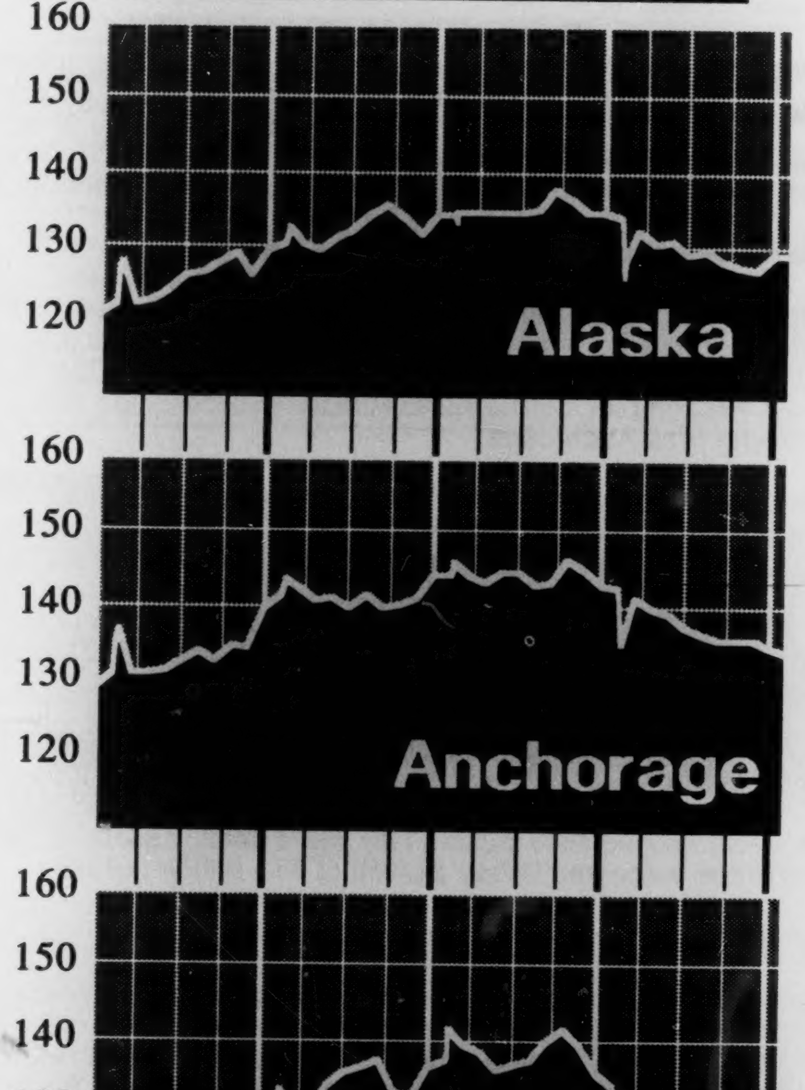
UNEMPLOYMENT RATE

not seasonally adjusted

1983 to present



COMPOSITE NONAG. EMPLOYMENT INDEXES



SEASONALLY ADJUSTED 1983 TO PRESENT

source: ak. dept. of labor

Anchorage/MatSu

By Greg Huff

Current Trends

For the fourteenth straight month, Anchorage employment was below the previous years level. February 1987 employment was 101,900, a decline of 6,500 jobs (-6%) compared to February 1986 levels. Federal government and food stores were the only industries showing year-to-year employment growth.

Federal Government

Federal government has been growing consistently, although at a moderate pace, for several years, except for a brief period after the Alaska Railroad was transferred to the state in 1985. The federal government employment levels in February represented 10% of total employment in Anchorage.

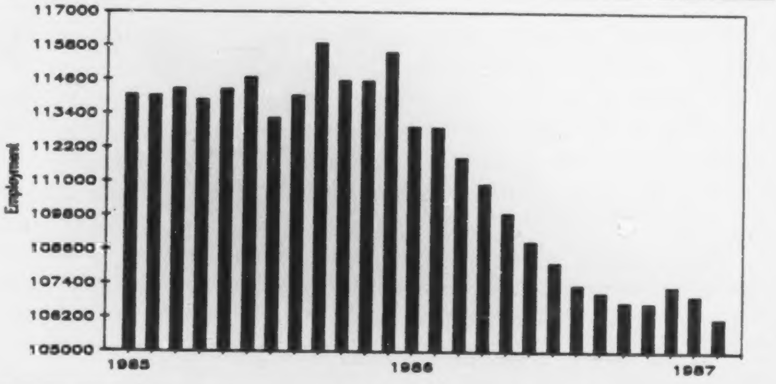
Federal government direct employment, however, understates the true impact of the federal government on the Anchorage economy. Nonagricultural wage and salary employment figures do not include uniformed military personnel. Including the uniformed military into the employment figures increases the federal government share of total employment to 17% (this figure includes some 10,800 uniformed military personnel).

Total payroll of the federal government, including the uniformed military in 1985 (most recent data available) was $540 million. If payments to Department of Defense retired personnel were included, that number would exceed $600 million. This was a healthy share of the total Anchorage wage and salary payroll of $3.1 billion in 1985.

Food Stores

Food store employment has been fluctuating above and below year-ago figures for the past 14 months. Food stores have yet to be hit as hard as other components of retail trade, many of which sell nonessential or discretionary items. Because the population in Anchorage has not declined as rapidly as employment and total payroll, food store employment has been fairly stable.

Figure 1
Anchorage Employment
Seasonally Adjusted



Conclusion

Declining employment is unusual for February. This in only the second time in 15 years that Anchorage employment has not improved in February. Year to year comparisons of monthly employment data can give us a clear picture of the overall trend in employment, but seasonally adjusted employment numbers can help explain the trends by removing the underlying seasonal and irregular movement in the data. Figure I indicates that the decline in Anchorage's employment from August 1986 through February 1987 was relatively stable compared to the patterns of the first 7 months of 1986. This pattern is likely to continue through the first half of 1987.

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/	r/		Changes From:	
	2/87	1/87	2/86	1/87	2/86
Nonag. Wage & Salary	101,900	102,200	108,400	-300	-6,500
Mining	3,250	3,100	4,150	150	-900
Construction	5,350	5,250	6,350	100	-1,000
Manufacturing	2,100	2,050	2,300	50	-200
Food & Kindred Prod.	400	350	400	50	0
Other Mfg.	1,700	1,700	1,900	0	-200
Trans. Comm. & Utilities	8,900	8,800	9,050	100	-150
Trucking & Whseing.	1,300	1,350	1,300	-50	0
Water Transportation	250	200	250	50	0
Air Transportation	2,950	2,900	2,950	50	0
Other Trans. Comm. & Utilities	4,400	4,350	4,550	50	-150
Trade	24,200	25,000	26,200	-800	-2,000
Wholesale	5,500	5,600	6,350	-100	-850
Retail	18700	19,400	19,850	-700	-1,150
Gen. Merchandise	1,800	1,950	1,800	-150	0
Food Stores	2,950	3,050	2,850	-100	100
Eating & Drinking Pl.	7,600	7,850	8,000	-250	-400
Other Retail Trade	6,350	6,550	7,200	-200	-850
Finance-Ins. & R.E.	7,900	8,000	8,350	-100	-450
Services & Misc.	23,900	24,000	25,200	-100	-1300
Government	26,300	26,000	26,800	300	-500
Federal	10,200	10,300	9,950	-100	250
State	7,100	6,650	7,550	450	-450
Local	9,000	9,050	9,300	-50	-300

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/	r/		Changes From:	
	2/87	1/87	2/86	1/87	2/86
Nonag. Wage & Salary	108,450	108,750	115,250	-300	-6,800
Mining	3,250	3,100	4,150	150	-900
Construction	5,550	5,500	6,700	50	-1,150
Manufacturing	2,150	2,150	2,350	0	-200
Trans. Comm. & Utilities	9,600	9,500	9,700	100	-100
Trade	25,750	26,500	27,700	-750	-1,950
Finance-Ins. & R.E.	8,450	8,500	8,900	-50	-450
Services & Misc.	25,000	25,150	26,450	-150	-1,450
Government	28,700	28,350	29,300	350	-600

Fairbanks/Interior

By Neal Fried

Labor Force Figures Improving

Good news is a sparse commodity these days, but the Fairbanks' February unemployment rate improved for the second straight month, 15.4% compared to 16.0% in February 1986. This represents only a small improvement but the significance is that it fell. The improving unemployment rate could mean that the rate of employment losses has already peaked and losses are moderating.

Rejoicing should be postponed, however, because the improvement in the unemployment rate may not be an indication that the economy is on the mend but simply that an increasing number of the unemployed are leaving. This phenomenon has occurred during past economic declines in Fairbanks. No firm answer to this question will really be available until the spring and summer season gets underway.

Unlike the unemployment rate, February's wage and salary employment figures showed little improvement. Employment fell by 5% over the year and losses are evident in more industries. Presently five out of eight major industry categories are indicating losses in employment and the remaining three categories are relatively flat.

Losses are increasing in the support sector of the economy which includes trade, services, and finance, insurance, and real estate. It is not surpris,ing that losses are just now increasing in this sector. These industries tend to react slowly to an economic downturn.

Construction's employment numbers are still falling, but it appears the bulk of its losses took place in 1986. Though no major rebound is expected in the construction industry this year, military related activity will begin to breathe some new life into this industry later in the summer season.

Federal government employment in February is being buoyed by the expansion on the military installations, but state and local government continues to face losses. The February's trends in all three levels of government are expected to continue throughout the remainder of the year.

Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

				Changes From:	
	p/ 2/87	r/ 1/87	2/86	1/87	2/86
Nonag. Wage & Salary	25,300	25,350	26,600	-50	-1,300
Mining	100	100	100	0	0
Construction	1,000	1,250	1,100	-250	-100
Manufacturing	550	550	550	0	0
Trans. Comm. & Utilities	2,500	2,550	2,500	-50	0
Trucking & Whseing	350	400	400	-50	-50
Air Transportation	900	900	900	0	0
Other Trans. Comm. & Utilities	1,250	1,250	1,200	0	50
Trade	5,150	5,250	5,500	-100	-350
Wholesale	850	850	900	0	-50
Retail	4,300	4,400	4,600	-100	-300
Gen. Mer. & Apparel	500	500	500	0	0
Food Stores	750	750	750	0	0
Other Retail Trade	3,050	3,150	3,350	-100	-300
Finance-Ins. & R.E.	1,000	1,000	1,050	0	-50
Services & Misc.	5,550	5,500	5,950	50	-400
Government	9,450	9,150	9,850	300	-400
Federal	2,900	2,850	2,750	50	150
State	3,900	3,600	4,200	300	-300
Local	2,650	2,700	2,900	-50	-250

Nonagricultural Wage and Salary Employment
By Place of Work
Interior

				Changes From:	
	p/ 2/87	r/ 1/87	2/86	1/87	2/86
Nonag. Wage & Salary	29,000	29,200	30,300	-200	-1,300
Mining	300	250	200	50	100
Construction	1,050	1,300	1,150	-250	-100
Manufacturing	550	550	550	0	0
Trans. Comm. & Utilities	2,850	2,900	2,800	-50	50
Trade	5,400	5,550	5,850	-150	-450
Finance-Ins. & R.E.	1,050	1,100	1,150	-50	-100
Services & Misc.	5,900	5,900	6,300	0	-400
Government	11,900	11,650	12,300	250	-400

Gulf Coast

By Neal Fried

Mixed Signals in the Gulf Coast

The labor force figures in February were mixed in the Gulf Coast region. In some areas of the region the February unemployment rate fell and in others it increased over the month. Year-ago comparisons were also mixed.

Kodiak

Kodiak's labor force numbers were the best in the region. Kodiak's February unemployment rate of 6.5% was the lowest in the region. Both their over-the-month and year-ago unemployment figures indicate improvement. This comes as no real surprise since Kodiak is one of the few areas of the state where employment is actually growing.

The bottomfish fishery has become a reality in Kodiak and has injected new life into the local economy. In past years the king crab fishery helped boost Kodiak's winter fishing season but since 1982, when the crab harvests collapsed, employment opportunities have been scarce during the winter. The bottomfish fishery has not fully replaced the employment lost by the decline in the king crab fishery but it is beginning to pick up some of the slack.

Presently there are a number of shore-based fish processors processing bottomfish, making Kodiak the busiest bottomfish port in the state. In the past when the salmon fishery began, fish processors would dismantle the bottomfish lines and replace them with salmon lines, but this year the demand for bottomfish is strong enough that a number of Kodiak fish processors will process both species simultaneously.

The Kenai Peninsula

The Kenai Peninsula's labor force figures were bleak in February. Little good can be said about an unemployment rate of 20.0%, the highest unemployment rate in the region and one of the highest unemployment rates in the state, slightly higher than January's figures and almost one point above year-ago levels. The unemployment picture will begin to improve in April, as the area's seasonal industries such as tourism, construction and fishing begin to get underway but no immediate over-the-year improvements are expected soon.

Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

				Changes From:	
	p/ 2/87	r/ 1/87	2/86	1/87	2/86
Nonag. Wage & Salary	17,950	17,400	18,500	550	-550
Mining	850	850	1,050	0	-200
Construction	800	800	1,050	0	-250
Manufacturing	2,350	1,850	2,150	500	200
Food & Kindred Prod.	1,800	1,300	1,550	500	250
All Other Mfg.	550	550	600	0	-50
Trans. Comm. & Utilities	1,350	1,350	1,550	0	-200
Trade	3,100	3,300	3,150	-200	-50
Wholesale	450	500	450	-50	0
Retail	2,650	2,800	2,700	-150	-50
Finance-Ins. & R.E.	650	650	650	0	0
Services & Misc.	3,150	3,050	3,150	100	0
Government	5,700	5,550	5,750	150	-50
Federal	600	600	550	0	50
State	1,500	1,400	1,550	100	-50
Local	3,600	3,550	3,650	50	-50

Valdez-Cordova

Valdez-Cordova's unemployment rate of 16.2% probably represents the peak unemployment rate for the year and should begin to drop next month. Unless serious activity gets underway on the proposed refinery in Valdez, this area's employment picture will have little chance to improve over last year.

Southeast Alaska

By John Boucher

Current Events

In February the Southeast Alaska unemployment rate dropped eight-tenths of one percentage point to 12.5%. Nearly every census areas within Southeast Alaska had a lower unemployment rate in February than in January, the excepion being Sitka.

Southeast Alaska continues to be a region characterized by extremes in unemployment. Three of the five highest areas of unemployment in the state are located in Southeast Alaska; the Skagway-Yakutat-Angoon census area (26.7% unemployed), Prince of Wales-Outer Ketchikan census area (22.1% unemployed), and the Wrangell-Petersburg census area (19.5% unemployed). On the other hand, the three largest labor markets in the region—Juneau, Ketchikan, and Sitka—all had unemployment rates below the statewide average. (See center insert for further details.)

Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

				Changes From:	
	p/ 2/87	r/ 1/87	2/86	1/87	2/86
Nonag. Wage & Salary	26,000	25,300	26,450	700	-450
Construction	750	750	800	0	-50
Manufacturing	2,750	2,150	2,350	600	400
Food & Kindred Prod.	450	250	400	200	50
Lumber & Paper Prod.	2,100	1,700	1,750	400	350
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	1,850	1,850	1,750	0	100
Trade	4,000	4,050	4,050	-50	-50
Wholesale	300	300	300	0	0
Retail	3,700	3,750	3,750	-50	-50
Finance-Ins. & R.E.	1,100	1,100	1,100	0	0
Mining, Services & Misc.	4,100	4,150	4,250	-50	-150
Government	11,450	11,250	12,150	200	-700
Federal	1,950	1,950	2,000	0	-50
State	5,150	5,050	5,550	100	-400
Local	4,350	4,250	4,600	100	-250

Hours and Earnings

By John Boucher

February Manufacturing Hours & Earnings

The manufacturing industries average weekly hours and average hourly earnings made some dramatic changes in the month of February. Food and kindred products weekly hours increased by more than ten hours per week as processors on the Gulf Coast and in the Southwest part of Alaska processed crab and bottomfish. The increase in hours was accompanied by a dramatic decrease in the hourly wage as lower paid short-term help was hired.

In the lumber and paper products industry there was also a dramatic increase in hours worked as a sawmill reopened after a temporary shutdown and some logging camps opened after a brief closure for the holidays.

Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 2/87	R/ 1/87	2/86	P/ 2/87	R/ 1/87	2/86	P/ 2/87	R/ 1/87	2/86
Mining	1,244.43	1,278.29	1,173.98	54.2	53.8	51.4	22.96	23.76	22.84
Construction	934.80	934.65	908.12	41.0	40.2	39.9	22.80	23.25	22.76
Manufacturing	464.11	427.70	499.70	39.6	32.9	41.4	11.72	13.00	12.07
Food & Kindred Prod	256.81	229.23	305.24	37.6	27.0	41.7	6.83	8.49	7.32
Lumber & Paper Prod	646.20	537.04	638.23	44.2	37.9	44.6	14.62	14.17	14.31
Trans., Comm. & Utilities	538.67	547.15	563.14	33.9	33.9	37.0	15.89	16.14	15.22
Trade	387.78	378.48	387.11	33.2	33.2	33.4	11.68	11.40	11.59
Wholesale	577.85	543.54	528.83	36.9	36.9	38.1	15.66	14.73	13.88
Retail	322.56	323.20	331.69	32.0	32.0	31.5	10.08	10.10	10.53
Finance-Ins. & R.E.	417.38	397.32	396.72	34.1	33.0	34.8	12.24	12.04	11.40

Benchmark 1986

1/ Prepared in cooperation with the Bureau of Labor Statistics U.S. Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

6/5/87 S0320-1A

MAY 1987
ALASKA ECONOMIC TRENDS

Alaska Department of Labor **Steve Cowper, Governor, State of Alaska**

Nonresidents Working in Alaska in 1985

THEY'RE H-E-E-R-R-E

Alaska Economic Trends

Steve Cowper, *Governor, State of Alaska*

Jim Sampson, *Commissioner, Department of Labor*

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Nonresidents Working in Alaska in 1985

By Betsy Jensvold

The Alaska Department of Labor recently published the annual resident hire report. The report contains data about nonresident wages and workers in Alaska, as well as information about the reasons employers hire nonresidents, alternative ways of promoting resident hire, and progress towards implementing resident hiring preferences on state-funded construction projects. This article highlights some of the information contained in that report.

Highlights from *Nonresidents Working in Alaska in 1985*.

- In 1985, $691 million was paid to 77,000 nonresident workers in Alaska. This represents an increase of $14 million and 6,000 employees over 1984 (tables 1 and 2).

- The average annual Alaska earnings of nonresidents was 43% of the average annual earnings of residents of Alaska (down from 48% in 1984); however, nonresidents did not spend as much time working in Alaska as residents (table 3).

- 1984 and 1985 data are strikingly similar. Although nonresident wages and workers increased in 1985, their percentage impact by industry and area changed only slightly.

- Oil and gas paid the highest total wages to nonresidents in 1985 and the second highest in 1984 (table 4).

- Heavy construction ranked the highest in total wages to nonresidents in 1984 and the second highest in 1985; however, construction as a whole (heavy construction, building construction, and special trades construction) paid more than oil and gas in both years (table 4).

- Food processing (with 94% of the firms in seafood processing) had the highest number of nonresident employees (13,512 in 1985), the highest proportion of wages paid to nonresidents (55% in 1985), and the highest proportion of employees who were nonresidents (68% in 1985) (tables 5 and 6).

- The Anchorage-MatSu Region had the highest number of nonresident employees (33,492 in 1985) and the highest amount of nonresident wages ($282 million in 1985), but the lowest proportion of nonresident employees (21% in 1985). In contrast, the Southwest Region had only 7,438 nonresident employees in 1985 and although it had the highest proportion of nonresident employees (38% in 1985) (table 7).

- Alaska has unique economic conditions compared to other states. In 1985, Alaska had the fifth highest overall unemployment rate in the nation, the third highest for all nonagricultural industries, the highest in manufacturing and government, and the sixth highest in construction. Alaska also had one of the highest unemployment rates in the nation for many major occupational categories.
- Nearly 22% of all regular unemployment insurance benefits paid by Alaska in 1985 were mailed to out-of-state addresses. This is the highest interstate rate in the nation, approximately 4.5 times the national average. Seventy-four percent of those interstate payments were to nonresidents.

Sources and Limitations of Data

Wage and employee data were developed by crossmatching 1985 wage records from the Alaska Department of Labor with 1985 and 1986 permanent fund dividend records from the Alaska Department of Revenue. Workers were considered residents if they received a 1985 dividend or filed for a 1986 dividend.

Data (except where otherwise stated) were drawn from Alaska Department of Labor wage records, and as such, do not include federal employees or workers who are not covered by unemployment insurance. Employees not covered by unemployment insurance include self-employed workers, most fishermen, full commission salespersons, agricultural workers, domestic workers, unpaid family workers, private railroad workers, elected and appointed public officials, and some employed students.

This report provides data about **employees**, not **employment**. **Employees** are the individual people who worked for wages during a specific period of time; **employment** is the number of filled jobs at a particular point in time. Because not all jobs are filled throughout the year and different individuals may work in the same position at different periods of time, **employee** counts exceed **employment** totals given in other publications, especially when comparing annual data. Approximately 70% more individuals work in Alaska over a year's time than the annual average number of jobs.

Employees and wages are counted in the census area of the employer's primary business location even though employees may actually work in another part of the state. This seriously skews the data for state government workers. Consequently, state workers are included in statewide data but excluded from region and census area data. Also,

Table 1
Total Resident and Nonresident Wages For Each Quarter and Year
Alaska 1934 and 1985

	1984			1985		
	Resident	**Nonresident**		**Resident**	**Nonresident**	
	Wages (thous)	**Wages (thous)**	**% of Total**	**Wages (thous)**	**Wages (thous)**	**% of Total**
Anytime During the Year	$5,105,893	$677,088	11.7	$5,207,993	$691,726	11.7
1st Quarter	1,179,066	149,236	11.2	1,205,671	137,084	10.2
2nd Quarter	1,277,718	169,161	11.7	1,324,940	170,319	11.4
3rd Quarter	1,335,162	222,936	14.3	1,342,319	236,533	15.0
4th Quarter	1,313,947	135,755	9.4	1,335,063	147,790	10.0

Source: Alaska Department of Labor, Research and Analysis

Table 2
Total Resident and Nonresident Employees for Each Quarter and Year
Alaska 1984 and 1985

	1984			1985		
	Resident	**Nonresident**		**Resident**	**Nonresident**	
	Number of Employees	**Number of Employees**	**% of Total**	**Number of Employees**	**Number of Employees**	**% of Total**
Anytime During the Year	256,143	71,076	21.7	252,058	77,126	23.4
1st Quarter	182,713	25,130	12.1	188,085	25,977	12.1
2nd Quarter	201,381	35,785	15.1	204,953	39,120	16.0
3rd Quarter	213,295	44,769	17.3	212,155	49,503	18.9
4th Quarter	201,867	28,524	12.4	200,601	31,790	13.7

Source: Alaska Department of Labor, Research and Analysis

employees and wages are counted in the industry of the employer from whom they earned the most wages.

Displacement of Resident Workers

As part of the study, an analysis of the displacement of workers in the construction industry was prepared. Evidence compiled suggests that in some occupations there were qualified Alaskans available to fill many of the positions occupied by nonresident workers in 1984 and 1985.

Table 8 and 9 lists the estimated number of nonresidents working in selected construction occupations during each calendar quarter of 1984 and 1985, and the number of Alaska residents with experience in those occupations who collected unemployment insurance compensation during that same quarter. This information provides a general indication of displacement of residents by nonresidents.

The data in Table 8 and 9 show that during each quarter of 1984 and 1985 there were several thousand Alaskans receiving unemployment insurance benefits who may have been qualified to fill positions occupied by nonresidents. The figures tend to overstate the number of nonresidents working and the number of residents qualified and available for work at any given time. Many of the positions held by nonresidents, however, were not highly skilled or highly technical and could probably have been filled by unemployed Alaskans.

Status of Resident Hire Employment Preferences

In 1986, the Fourteenth Alaska Legislature passed a resident hire statute for public-funded construction; the statute is complex and substantially different from previous versions. The legislature emphasized the need to pass a law that would withstand a test of its constitutionality. Consequently, the new statute uses a very targeted approach based on detailed statistical information.

Before any hiring preferences can be implemented, determinations must be made as to which geographic areas of the state qualify for preference based on specific criteria. Three distinct types of data are required: data about overall economic conditions, specific data about the displacement of resident workers by nonresidents, and data about the social and economic consequences of unemployment. Before determinations can be made, regulations must be approved and data compiled.

At this time, regulations have been drafted and reviewed through the public hearing process but not finalized. Data have been compiled which illustrate the overall economic condition of each area of the

Table 3
Total Quarters Worked in Alaska
1984 and 1985

Total Quarters Worked	**1984** Resident	**1984** Nonresident	**1985** Resident	**1985** Nonresident
One Quarter	14.4%	45.4%	11.0%	44.8%
Two Quarters	16.4%	29.3%	14.9%	29.9%
Three Quarters	15.6%	14.1%	16.4%	14.5%
Four Quarters	53.6%	11.2%	57.6%	10.9%

Source: Alaska Department of Labor, Research and Analysis

Table 4
Ten Industries with the Highest Wages Paid to Nonresidents
Alaska 1984 and 1985

	1984 Resident		**1985 Nonresident**	
Standard Industrial Classification (SIC)	**Wages (thous)**	**Rank**	**Wages (thous)**	**Rank**
Heavy Construction	$105,154	1	$ 74,009	2
Oil and Gas	71,585	2	106,646	1
Food Processing	58,079	3	61,964	3
Special Trades Construction	51,096	4	41,574	4
Building Construction	45,439	5	34,146	5
Business Services	29,731	6	33,222	6
Local Government	28,135	7	31,747	7
Miscellaneous Services	26,942	8	23,410	10
Eating and Drinking Places	24,477	9	27,111	9
Air Transportation	22,157	10	22,165	11
State Government	20,171	11	28,217	8

Source: Alaska Department of Labor, Research and Analysis

For a more detailed analysis of the impact of nonresidents in 1985 see *Nonresidents Working in Alaska in 1985*, January 1987. For an analysis of the impact of nonresidents in 1984 see *Nonresidents Working in Alaska: A Special Study to Measure the Economic Impact of Nonresidents on Alaska's Economy During Calendar Year 1984*, January 1986. For information on the history of the resident hire issue see *Alaska Economic Trends, August 1985.*

Table 5
Ten Industries With Over $1 Million in Wages and the Highest Percentage of Wages Paid to Nonresidents Alaska 1984 and 1985

	1984				1985			
	Resident	Nonresident			Resident	Nonresident		
Standard Industrial Classification (SIC)	Wages (thous)	Wages (thous)	% of Total	Rank	Wages (thous)	Wages (thous)	% of Total	Rank
Food Processing	$ 50,904	$ 58,079	53	1	$ 50,462	$61,964	55	1
Nonclassifiable 2/	6,729	3,088	31	2	11,082	4,702	30	3
Heavy Construction	254,276	105,154	29	3	199,691	74,009	27	7
Miscellaneous Repair	15,684	6,483	29	4	15,408	5,140	25	8
Metal Mining 1/	13,210	4,895	27	5	12,621	5,046	29	4
Fishing, Hunting, Trapping 1/	3,374	1,172	26	6	4,069	2,175	35	2
Nonmetal/Nonfuel Mining	x	x	x	7	x	x	27	6
Logging	25,441	7,928	24	8	28,916	10,898	27	5
Agricultural Services	4,688	1,303	22	9	5,684	1205	17	15
Building Construction	187,022	45,439	20	10	143,687	34146	19	12
Transportation Equip Mfg	1,807	435	19	11	2,217	605	21	10
Water Transportation	38,390	8,583	18	12	37,733	10,401	22	9

Source: Alaska Department of Labor, Research and Analysis

Note: "x" indicates that information is nondisclosable.
1/ Data include only nonagricultural wage and salary employees covered by unemployment insurance. Consequently, data provided for this industry may not be representative of the industry as a whole.
2/ Not classified in any other industry.

Table 6
Ten Industries With Over 200 Employees and the Highest Percentage of Nonresident Employees Alaska 1984 and 1985

Standard Industrial Classification (SIC)	1984 Resident Number of Employees	1984 Nonresident Number of Employees	1984 Nonresident % of Total	1984 Rank	1985 Resident Number of Employees	1985 Nonresident Number of Employees	1985 Nonresident % of Total	1985 Rank
Food Processing	6,615	12,068	65	1	6,431	13,512	68	1
Nonclassifiable 2/	920	767	45	2	1,119	608	35	5
Metal Mining 1/	611	373	38	3	511	326	39	4
Logging	1,204	715	37	4	1,296	864	40	3
Fishing, Hunting, Trapping 1/	330	177	35	5	348	285	45	2
Heavy Construction	8,800	4,094	32	6	7,182	3,770	32	12
Eating and Drinking Places	17,376	7,473	30	7	17,793	8,838	33	8
Nonmetal/Nonfuel Mining	x	x	x	8	x	x	35	6
Business Services	9,294	3,990	30	9	9,670	3,926	29	17
Agricultural Services	499	207	29	10	538	242	31	13
Recreation Services	1,369	553	29	11	1,566	773	33	9
Motion Pictures	491	125	20	27	375	178	32	10
Transportation Equip Mfg	123	66	35	*	146	77	35	7

Source: Alaska Department of Labor, Research and Analysis

Note: "x" indicates that information is nondisclosable.

Note: "*" indicates that the total number of employees was not large enough to meet the minimum cut off for ranking on this table.

1/ Data include only nonagricultural wage and salary employees covered by unemployment insurance. Consequently, data provided for this industry may not be representative of the industry as a whole.

2/ Not classified in any other industry.

state; however, data about occupational supply and demand are not currently available in enough detail to demonstrate that nonresident workers have displaced qualified, available resident workers in specific occupations and specific areas of the state. Consequently, the Department of Labor has begun implementation of a new system designed to collect the required information. Data about the social and economic impact of unemployment are available through a variety of sources which will be analyzed in depth later this year. The department expects to be able to make determinations for most construction-related occupations by January 1988.

Employer Comments on Resident Hire

In 1986 the Alaska Department of Labor surveyed a small number of employers in ten industries which paid high amounts of wages to nonresidents in 1984 and 1985. The purpose of this survey was to learn reasons why employers hire nonresidents and to ask employers for their ideas about ways to promote the hiring of Alaska residents. Firms were selected to represent the extremes within each industry: those with the highest and those with the lowest percentage of nonresident employees and wages. Responses were obtained from a total of 74 firms, with at least six respondents from each selected industry.

Employers were asked to provide reasons why their industry hires nonresidents (unprompted response). Employers were then read a prepared list of possible reasons for hiring nonresidents and asked if any of those reasons applied to their industry (prompted response).

Sixty percent of employers contacted said their industries hire nonresidents because available Alaskans lack required training or experience. This was the most frequently cited reason in construction, mining, and service industries. Thirty-five percent of employers contacted stated that their industries hire nonresidents because there are no Alaskans available, a reason commonly mention by employers in food processing.

Fifty percent of employers contacted stated that their industries hire nonresidents because it is company policy to transfer people within the company, a frequent response by employers in mining industries.

Nineteen percent of employers felt that the ability to pay lower wages was a reason to hire nonresidents. Sixteen percent of employers indicated that nonresidents worked harder or had better work attitudes than residents.

Employers stated they often promote the hiring of residents by having a company resident hire policy; by advertising openings locally;

Table 7
Percent Nonresident Wages and Employees by Geographic Zone
1984 and 1985

	Wages Paid to Nonres as a % of Total		Nonresident Employees as a % of Total	
Geographic Zone	**1984**	**1985**	**1984**	**1985**
Alaska Statewide	12.6	11.7	22.8	23.4
Anchorage-MatSu Region	9.0	9.6	19.2	20.7
Anchorage Borough	9.1	9.7	19.4	20.8
MatSu Borough	7.1	7.0	15.7	18.5
Gulf Coast Region	14.3	14.9	28.5	32.3
Kenai Peninsula Borough	11.9	13.5	22.2	27.3
Kodiak Island Borough	21.8	18.8	39.0	40.2
Valdez-Cordova	14.4	16.9	33.2	37.9
Interior Region	12.7	12.1	21.2	23.2
Fairbanks North Star Borough	13.0	12.3	22.0	24.0
Southeast Fairbanks	8.5	9.8	20.7	20.3
Yukon-Koyukuk	9.2	9.9	13.4	16.0
Northern Region	25.5	22.4	26.9	25.1
Nome	10.0	9.5	13.0	15.0
North Slope Borough	28.0	24.9	33.3	30.5
Northwest Arctic Borough	9.5	7.7	10.8	12.4
Southeast Region	11.2	13.1	23.3	27.2
Haines Borough	11.4	18.0	16.9	32.3
Juneau Borough	8.3	9.3	18.9	21.6
Ketchikan Gateway Borough	9.0	10.8	18.9	22.2
Prince of Wales-Outer Ketchikan	17.3	17.9	27.6	30.5
Sitka Borough	7.9	8.5	16.5	19.4
Skagway-Yakutat-Angoon	25.4	27.6	38.1	43.4
Wrangell-Petersburg	20.2	25.0	38.0	42.7
Southwest Region	24.2	24.2	37.6	37.6
Aleutian Islands	41.6	41.4	62.6	60.9
Bethel	8.4	9.7	12.8	15.5
Bristol Bay Borough	42.7	39.0	60.0	58.8
Dillingham	30.7	30.0	45.6	46.5
Wade Hampton	4.5	6.6	8.8	12.3
Geographic Area Unknown	27.2	39.5	46.4	58.6

Source: Alaska Department of Labor, Research and Analysis
Note: State government wages and employees are excluded from all regions and census areas but included at the statewide level.

Table 8
Nonresidents Employed and Residents Available for Work by Quarter in Selected Construction Occupations Alaska 1984

Occupation Title (Dictionary of Occupational Titles)	**Quarter 1**		**Quarter 2**		**Quarter 3**		**Quarter 4**	
	Nonres Emp	**Res Unemp**	**Nonres Emp**	**Res Unemp**	**Nonres Emp**	**Res Unemp**	**Nonres Emp**	**Res Unemp**
MECHANICS/MACHINE REPAIR								
Motor Vehicle Mechanics	128	509	161	392	174	302	131	481
Engine, Transmission Mechanics	81	152	87	117	103	96	87	135
Misc. Machine Repair	57	138	54	115	63	94	49	122
Other Related Occupations	1	5	1	2	1	1	6	1
METAL FABRICATION								
Fitting, Bolting Occupations	81	204	101	193	158	121	114	165
Sheet Metal	90	53	80	64	95	51	71	69
Other Related Occupations	9	22	7	15	8	12	11	22
WELDERS,CUTTERS & RELATED								
Other Related Occupations	137	309	168	266	166	205	136	272
ELECTRICAL INSTALLING & REPAIR								
Transmission, Distrib. Line Inst.	43	133	54	122	87	44	71	95
Installation, Repair Transp. Equip.	5	10	7	10	8	10	6	9
Installation, Repair Lg. Appliance	1	9	7	6	8	6	6	7
Other Related Occupations	33	99	27	87	40	51	38	87
PAINTING, PLASTERING, CEMENTING								
Construction Painters	43	170	54	152	55	114	38	193
Plasterers	24	54	40	50	47	37	33	43
Cement, Concrete Finishers	24	136	101	117	134	50	87	109

EXCAVATING, GRADING, PAVING								
Excavating, Grading	47	283	94	194	111	89	87	238
Paving, Asphalt, & Concrete	5	30	20	28	24	9	11	33
Other Related Occupations	407	1,518	798	1,161	988	608	691	1,351
OTHER CONSTRUCTION OCCUPATIONS								
Carpenters	502	1,855	684	1,692	869	1,058	593	1,524
Brick, Stone, & Tile Setters	9	55	47	54	47	21	33	41
Plumbers, Fitters, & Related Occup.	493	355	530	384	545	281	327	353
Asbestos, Insulation	19	13	27	12	24	12	17	12
Floor Laying, Finishing	9	21	7	18	16	11	6	14
Glaziers	19	18	21	18	16	13	17	16
Roofers	28	77	40	71	64	35	49	59
Other Related Occupations	696	3,440	1,093	3,078	1,264	1,918	811	2,934
MOTOR FREIGHT OCCUPATIONS								
Truck Driver, Heavy	133	1,022	241	854	277	478	207	830
Truck Driver, Light	9	111	14	101	24	69	17	91
OTHER TRANSPORTATION OCCUPATIONS								
Other Related Occupations	5	28	7	25	8	16	6	31
PACKAGING & MATERIALS HANDLING								
Hoisting & Conveying	28	222	80	158	103	119	60	184
Other Related Occupations	38	282	80	218	87	173	55	257
MINERAL EXTRACTION OCCUPATIONS								
Earth Boring, Drilling & Related	28	224	47	191	55	168	49	158
TOTAL FOR SELECTED OCCUPATIONS	3,232	11,557	4,779	9,965	5,669	6,272	3,920	9,936
TOTAL NONRESIDENTS WORKING FOR CONSTRUCTION COMPANIES	4,737		6,706		7,903		5,444	

Source: Alaska Department of Labor, Research and Analysis

Table 9
Nonresidents Employed and Residents Available for Work by Quarter in Selected Construction Occupations Alaska 1985

Occupation Title (Dictionary of Occupational Titles)	Quarter 1		Quarter 2		Quarter 3		Quarter 4	
	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp
MECHANICS/MACHINE REPAIR								
Motor Vehicle Mechanics	86	538	121	661	140	459	96	687
Engine, Transmission Mechanics	23	162	23	214	29	134	20	229
Misc. Machine Repair	6	126	17	172	36	158	20	157
Other Related Occupations	0	4	0	6	0	5	0	5
METAL FABRICATION								
Fitting, Bolting Occupations	39	173	69	207	125	127	86	168
Sheet Metal	49	85	63	104	73	64	51	123
Other Related Occupations	3	24	5	26	14	17	10	19
WELDERS,CUTTERS & RELATED								
Other Related Occupations	116	268	156	352	169	277	107	342
ELECTRICAL INSTALLING & REPAIR								
Transmission, Distrib. Line Inst.	29	95	34	112	81	31	66	80
Installation, Repair Transp. Equip.	3	9	0	10	0	10	0	10
Installation, Repair Lg. Appliance	0	5	0	10	0	9	0	14
Other Related Occupations	16	131	34	163	44	102	40	106
PAINTING, PLASTERING, CEMENTING								
Construction Painters	26	226	40	295	66	181	51	196
Plasterers	16	51	23	87	29	54	10	83
Cement, Concrete Finishers	36	136	81	152	110	60	81	153
EXCAVATING, GRADING, PAVING								
Excavating, Grading	29	229	69	229	66	121	56	235

Paving, Asphalt, & Concrete	3	30	34	30	36	11	25	44
Other Related Occupations	366	1,374	754	1,538	914	788	622	1,719
OTHER CONSTRUCTION OCCUPATIONS								
Carpenters	402	1,951	725	2,348	1,003	1,380	724	1,692
Brick, Stone, & Tile Setters	23	66	40	68	59	32	40	60
Plumbers, Fitters, & Related Occup.	259	485	353	578	435	376	260	505
Asbestos, Insulation	6	23	17	35	29	24	15	20
Floor Laying, Finishing	13	18	11	19	14	17	10	19
Glaziers	16	29	17	31	14	20	10	25
Roofers	23	96	52	122	66	53	45	95
Other Related Occupations	476	3,416	1,061	4,163	1,364	2,576	902	3,370
MOTOR FREIGHT OCCUPATIONS								
Truck Driver, Heavy	96	926	208	1,110	280	623	168	998
Truck Driver, Light	9	146	17	201	22	140	15	165
OTHER TRANSPORTATION OCCUPATIONS								
Other Related Occupations	3	35	5	59	7	59	5	44
PACKAGING & MATERIALS HANDLING								
Hoisting & Conveying	39	244	63	280	81	193	45	343
Other Related Occupations	29	299	58	379	59	254	35	339
MINERAL EXTRACTION OCCUPATIONS								
Earth Boring, Drilling & Related	29	154	58	212	66	170	45	200
TOTAL FOR SELECTED OCCUPATIONS	2,269	11,554	4,208	13,973	5,431	8,525	3,660	12,245
TOTAL NONRESIDENTS WORKING FOR CONSTRUCTION COMPANIES	3,330	5,803	7,378	5,100				

Source: Alaska Department of Labor, Research and Analysis

Note: The occupational profile of nonresidents working in construction is derived from those nonresidents who filed an unemployment claim. That profile was then applied to the total nonresident labor pool working in construction during each quarter. Approximately, 42.5 percent of all nonresidents working in construction had filed a UI claim from which to derive their occupational code.

or by using local unions, Job Service offices, local private employment agencies or universities to find workers.

Employers feel the State should promote resident hire by publicizing the issue and working actively to train and place resident workers. This process has already started in the seafood processing industry. The seafood industry is working with the Alaska Department of Labor, Employment Securities Division, through its Job Service offices to advertise and recruit Alaska residents for seafood processing jobs.

Ideas for Promoting Alaska Hire

The 1986 Alaska Hire Task Force report presented 36 approaches for promoting resident hire in Alaska. The report, a compilation of ideas from state agencies and a variety of sources outside of state government, was intended primarily for policy makers to use as a reference of new ideas and initiatives on resident hire.

The proposals described in the report are wide-ranging in nature and approach the issue of resident hire from many different directions. Some of the proposals are relatively narrow in focus, while others involve significant economic, legal, or political considerations.

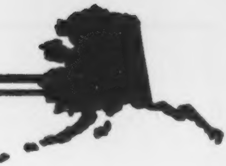
Proposals include loan program incentives, expansion of job service networks, oil industry training programs, resident hire incentive programs, and expanded bidder preference. A more detailed description of these and other proposals are available upon request from the Alaska Department of Labor's research and analysis unit.

Summary

Although most Alaskans support the idea of hiring residents, there is substantial disagreement over exactly what role the State should play. Most agree that the State should actively promote the idea of resident hire and work to train and place resident workers.

The Alaska Department of Labor is now collecting data to support the legislative decision making process, and to support implementation of resident hiring preference. Other actions, such as in-state contractor bidding preferences, "Buy-Alaska" legislation, and tax or loan incentives, are more controversial. Nevertheless, the Alaska legislature is actively considering a variety of approaches.

Alaska



By Edward Eboch

Current Events

The employment statistics appear to be giving mixed signals to Alaska's economic performance. The unemployment rate is down over the year and over the month, however, the number of people employed is also down over the year and the increase in employment was the smallest February-to-March increase in employment since 1964.

The average weekly hours worked, usually a good indicator of future trends, is down over the year for all industries except for manufacturing and retail trade. While the manufacturing industry is doing well, especially seafood processing, the same cannot be said about the retail trade sector which is experiencing year-to-year losses in employment and record bankruptcies.

Hidden Effects

Several things may be happening that cause the employment statistics to understate the severity of the current downturn. The most obvious is people leaving the state because they lost their jobs and exhausted their unemployment benefits. As people leave the state, they are no longer part of the work force and therefore, technically no longer counted as unemployed in Alaska. This can cause the labor force to fall faster than employment.

Less obvious, and more difficult to document, is the underemployment and hidden unemployment that occurs. Underemployment occurs when a person is forced to work in a job that requires less training and education than the employee has, and when people desire full time work but are employed part time. A skilled construction worker taking a job as a clerk in retail trade because he is unable to find a job in his chosen profession and no longer qualifies for unemployment benefits would be an example.

As these workers take employment usually filled by students and other part time workers not qualifying for unemployment benefits, the count of the unemployed becomes understated. To be eligible for unemployment benefits, a person must earn $1,000 a quarter, more than the earnings of many part-time workers. Students under 16 are not counted as unemployed or as part of the labor force when they are unable to find work. In addition, people become discouraged about finding work and quit looking so they are no longer counted in the

Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

				Changes From:	
	p/ **3/87**	**r/** **2/87**	**3/86**	**2/87**	**3/86**
Nonag. Wage & Salary	206,500	206,000	215,700	500	-9,200
Mining	8,400	8,400	9,700	0	-1,300
Construction	9,400	9,400	10,600	0	-1,200
Manufacturing	9,500	9,300	9,200	200	300
Food & Kindred Prod.	4,200	4,000	3,900	200	300
Lumber & Paper Prod.	2,300	2,300	2,200	0	100
All Other Mfg.	3,000	3,000	3,100	0	-100
Trans. Comm. & Utilities	17,200	17,100	17,000	100	200
Trucking & Whseing.	1,900	1,900	2,100	0	-200
Water Transportation	1,000	1,000	1,000	0	0
Air Transportation	5,500	5,400	5,100	100	400
Other Trans. Comm. & Utilities	8,800	8,800	8,800	0	0
Trade	40,200	40,200	42,900	0	-2,700
Wholesale	7,300	7,300	8,200	0	-900
Retail	32,900	32,900	34,700	0	-1,800
Gen. Mer. & Apparel	4,800	4,800	4,900	0	-100
Food Stores	5,900	5,800	5,700	100	200
Eating & Drinking Pl.	12,000	11,900	12,800	100	-800
Other Retail Trade	10,200	10,400	11,300	-200	-1,100
Finance-Ins. & R.E.	12,100	12,200	12,600	-100	-500
Services & Misc.	41,900	41,500	43,900	400	-2,000
Government	67,800	67,900	69,800	-100	-2,000
Federal	18,400	18,400	17,600	0	800
State	19,500	19,400	21,100	100	-1,600
Local	29,900	30,100	31,100	-200	-1,200

Prepared in cooperation with the U.S. Bureau of Labor Statistics.
Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date 1986.

p/ Denotes preliminary estimates.

r/ Denotes revised estimates.

labor force. As a result the actual count of the unemployed is likely to be understated.

Impact on Costs

As people out of work struggle with less income the good news is that prices appear to be moderating. The American Chamber of Com-

Table 1
American Chamber of Commerce Research Association
Inter-City Cost of Living Index
1986

	Quarter	
	Third	**Fourth**
Anchorage	139.4	134.3
Fairbanks	141.7	141.0
Juneau	144.9	145.0
Seattle	105.2	108.1
All City Average	100.0	100.0

merce Research Association's (ACCRA) *Inter-City Cost of Living Index* has just been released for the fourth quarter 1986 (table 1).

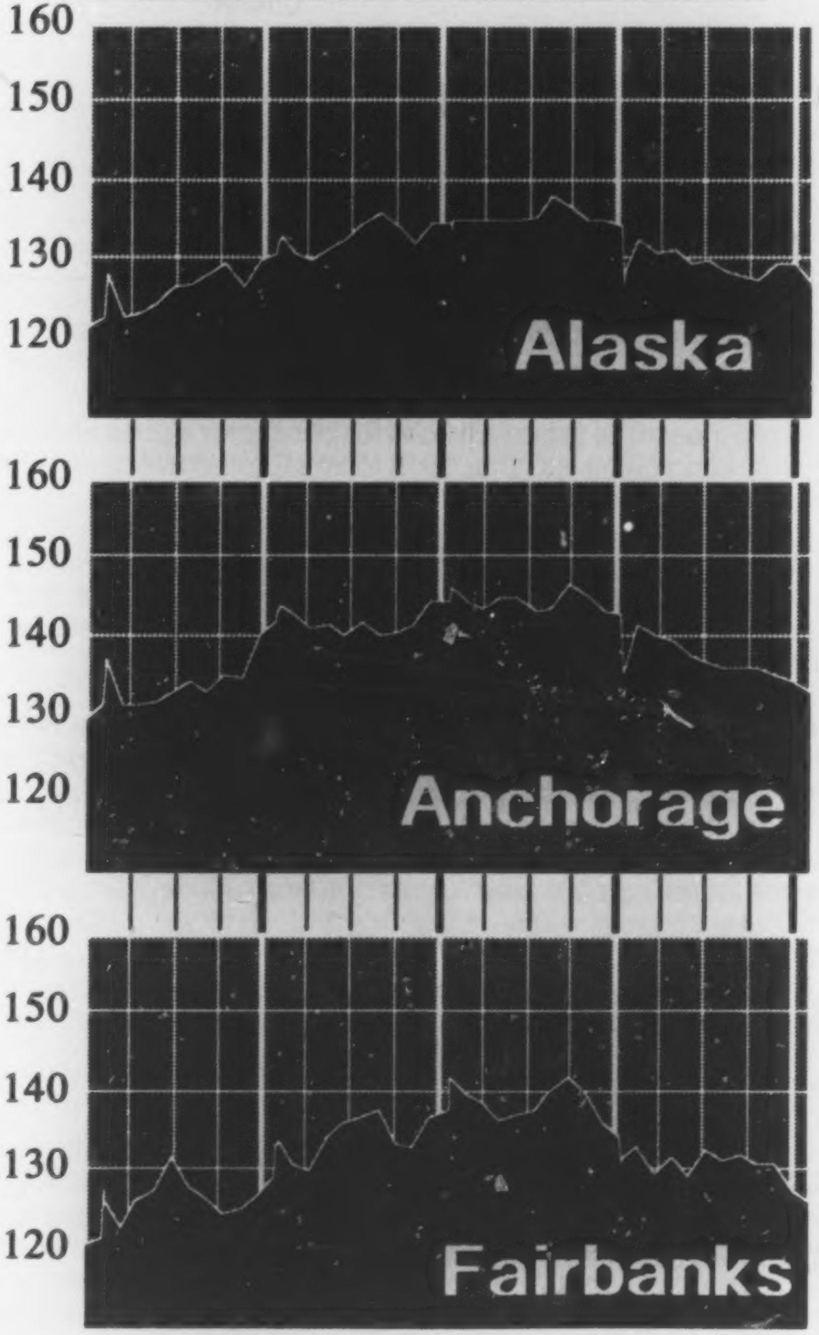
This index measures relative prices for consumer goods and services in participating cities, as compared to an all cities average. For example, according to the ACCRA index, Anchorage was 34.3% more costly than the all city average and 24.2% ((134.3/108.1 – 1) × 100) more costly than Seattle in the fourth quarter 1986. Because the number of items is limited, differences between cities should not be considered exact measures but rather representative of differences in the cost of living between communities.

Since the third quarter 1986, costs in Anchorage as measured by this index went down compared to the all city average and compared to Seattle. Fairbanks and Juneau remained approximately the same relative to the all city average but went down compared to Seattle. Most of the decline in Anchorage was accounted for in the housing index while the other sub-indexes (grocery items, utilities, transportation, health care, and miscellaneous goods and services) increased or remained steady over the period. The changes in house prices in Juneau and Fairbanks are apparently lagging the Anchorage market and will no doubt be reflected in the first quarter 1987 index.

Conclusion

Few Alaskans are misled by the employment statistics or the inflation statistics. With record bankruptcies and house foreclosures, falling house prices (which account for the improved cost statistics but which result in a loss of assets for many people), and continued layoffs it is difficult to accept unemployment statistics that imply improvements in the economy. A closer examination of the data suggests that both the method of measuring unemployment and the movement of people from the state allows the unemployment statistics to hide the depth of the economic decline.

COMPOSITE NONAG. EMPLOYMENT INDEXES



SEASONALLY ADJUSTED 1983 TO PRESENT

source: ak. dept. of labor

Anchorage/MatSu

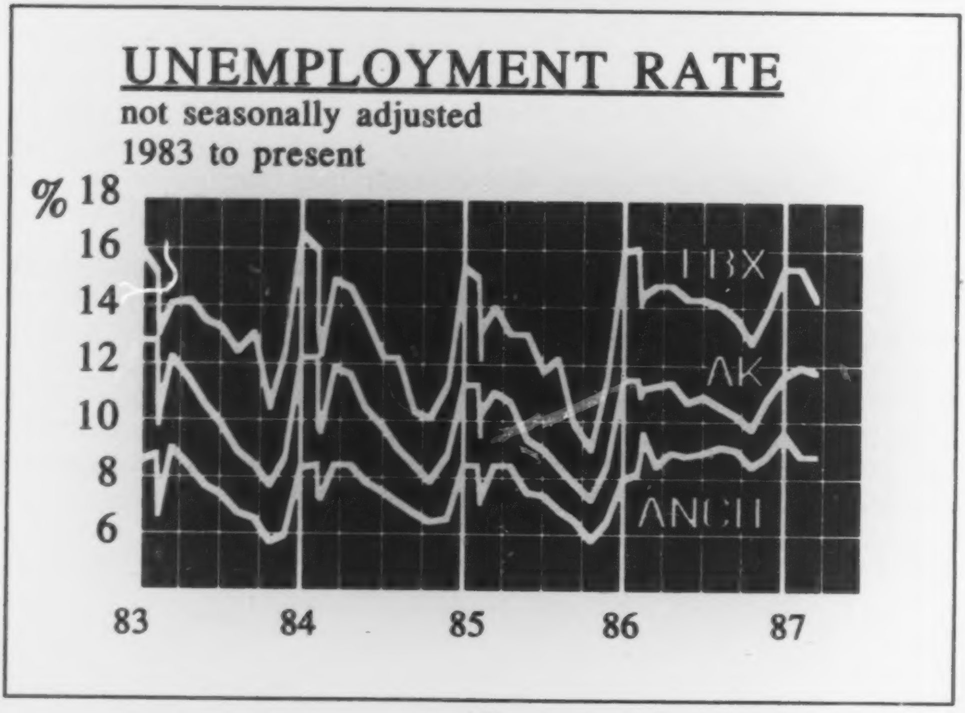
By Greg Huff

Current Trends

March brought some good news about the unemployment rate for the Anchorage/Matsu labor market area. The March 1987 rate was 0.2% lower than March 1986. Although the year-to-year improvements in the unemployment rate is likely to continue, it does not mean growth in employment.

Over-the-year comparisons of employment continue to show enormous losses as the unemployment rate falls, however, the number of people unemployed is falling at a slightly faster rate than the number employed. This occurs because the labor force falls faster than employment as unemployed workers leave the state and as an increased number of discouraged workers quit looking for work. (By definition discouraged workers are not included in labor force statistics.) As a result, the number of unemployed workers is falling at a faster rate than jobs.

Employment in Anchorage and Matsu began to decline rapidly in 1986 and continues to decline into 1987, but not all areas of the region experienced the same percent drop in employment. For example, em-



ployment in Eagle River and the surrounding areas fell less than 1% in 1986 compared to a 4.5% decline in Anchorage.

Eagle River and Surrounding Areas Population and Employment Trends 1980-1986

Situated along the Glenn Highway at the most northern portion of the Municipality of Anchorage are the communities of Eagle River, Chugiak, Birchwood, Peters Creek and Eklutna. Because they are separated from Anchorage by Elmendorf Air Force Base and Fort Richardson, a distance of 10 miles, these communities have a distinct makeup. During the early 1980s they became popular residential communities and grew at an extraordinary pace both in terms of population and employment, although most residents work outside of the local area.

Based on estimates provided by the Municipality of Anchorage Planning Department, approximately 4% of the adult population in the area were in the military living off-base, while 77% were in the civilian labor force and the remaining 20% were adults (mostly female) not participating in the labor force. Seventy-five percent of those workers in the civilian labor force that were receiving pay or were not self employed commute outside the area to work. Census data shows that workers in Eagle River and the surrounding areas spend an average of 30 minutes travel time getting to work.

Population

The population of the area encompassing Eagle River, Chugiak, Birchwood, Peters Creek and Eklutna doubled from 1980 to 1986 to 25,347 from 12,858. The population growth in these communities was faster than most other communities in the Anchorage borough. Because of the rapid population gains, the communities represent 10% of Anchorage's population, up from 7.5% in 1980 and 4.6% in 1970 (table 1).

The pressures of a growing population strained the housing supply and increased the demand for new housing. From the early 1980s to the mid-1980s the housing stock in the area increased from 4,450 units to over 8,600 units. The majority of the homes built were single family residences. The largest increase in housing units occurred in 1983 when over 1,400 units were constructed, 80% of which were single family residences. The following year an additional 1,000 units came on line, 800 of which were single family homes.

Table 1
Eagle River and Surrounding Area
Population /1
1980-1986

	1980	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**
Eagle River	7,528	8,787	9,106	13,741	15,320	15,948	N/A
Chugiak, Birchwood, Peters Creek and Eklutna	5,330	5,538	5,871	8,208	8,892	9,119	N/A
Total Area Population	12,858	14,325	14,977	21,949	24,202	25,067	25,347
Total Area housing stock	4,468	4,673	5,354	6,680	7,726	8,162	8,626
Total Anchorage Population	174,431	187,761	204,216	230,846	244,030	248,263	248,050

1/ The source for the 1980 data is the U.S. Census. The source for the 1981 to 1986 data is the Municipality of Anchorage, Planning Department

N/A: Not Available

As the population of school age children grew, construction of new schools were required. According to the Anchorage School District, in 1980 there were 1,691 children enrolled in four elementary schools and 1,385 students in one secondary school in the area (junior and senior high schools were combined). Six years later the number of elementary students increased to 3,112 in six schools and the number of secondary students rose to 2,292 in two secondary schools.

An increase of nearly 700 students in 1983 was the largest single year gain. That same year the Gruening Junior High was separated from Chugach High School but operated on split shifts at the high school site until 1984 when the new Gruening Junior High School was opened. The Ravenwood and Firelake Elementary schools were opened in 1984 and 1985 respectively.

Employment

As the area's population expanded the demand for goods and services increased causing established firms to expand their existing operations and new firms to move into the area. As a result employment in the Eagle River/Chugiak and surrounding areas increased from 1,235 in 1980 to over 2,600 in 1986. This was an increase in employment of over 70% in six years and an average of 11.6% growth per year, although growth ranged from 22.0% in 1983 to a 0.3% decline in 1986. The number of firms in the area increased from 160 to over 320.

Economic growth brought with it an increased diversity and variety of goods and services. Previously, many goods and services had to be purchased in Anchorage or forgone. Business growth was particularly extensive in the commercial area of Eagle River, which has literally been transformed into a major business district.

The trade industry contributed nearly 50% of the employment gains in the area (Table 2). This industry grew an average of 19% annually, resulting in 430 new jobs between 1980 and 1986. Of total trade employment roughly 70% is directly related to food, restaurants, and grocery stores.

Table 2
Eagle River and Surrounding Area Employment
1980-1986

	1980	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**
Mining	*	*	*	*	*	*	*
Construction	90	122	206	305	376	337	222
Manufacturing	*	*	*	*	*	*	*
T.C.U.	155	150	140	190	220	330	350
Trade	314	466	533	608	636	785	797
Wholesale	31	57	50	51	46	45	47
Retail	283	409	483	557	590	740	750
Finance-Ins. & R.E.	34	37	48	64	80	88	102
Services	217	230	243	320	429	486	575
Misc.	*	*	*	*	*	*	*
Government	383	379	385	451	489	534	533
Federal	40	26	25	35	38	29	33
State	98	98	92	100	101	105	100
Local	245	255	268	316	350	400	400
Total Employment	1,235	1,432	1,637	1,998	2,290	2,613	2,607

* Nondisclosable

The demand for a greater selection of services also grew substantially over the period. The personal services component of the services industry, grew a moderate 25%, compared to the business and health services components, both of which grew four fold. Combined, the two accounted for 25% of total services employment in 1986. Even more spectacular is the growth of recreational services employment, growing from no jobs in 1980 to 70 jobs, or 13% of total services employment in 1986.

Population growth was the catalyst for employment growth in the natural gas, electric and telephone utilities, but the majority of the

Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 3/87	R/ 2/87	P/ 3/86	R/ 3/87	P/ 2/87	R/ 3/86	P/ 3/87	R/ 2/87	3/86	3/87	2/87	3/86
Alaska Statewide	245,565	242,529	250,144	28,892	29,031	30,428	11.8	12.0	12.2	216,673	213,498	219,716
Anch.-MatSu Region	131,593	130,134	135,637	13,177	13,004	13,856	10.0	10.0	10.2	118,416	117,130	121,781
Anchorage Borough	116,049	114,672	119,346	10,229	10,063	10,602	8.8	8.8	8.9	105,820	104,609	108,744
MatSu Borough	15,544	15,462	16,291	2,948	2,941	3,254	19.0	19.0	20.0	12,596	12,521	13,037
Gulf Coast Region	25,640	25,306	25,832	4,033	4,139	4,440	15.7	16.4	17.2	21,607	21,167	21,392
Kenai Peninsula Bor	15,940	15,775	16,070	3,048	3,145	3,306	19.1	19.9	20.6	12,892	12,630	12,764
Kodiak Island Bor	5,724	5,638	5,836	340	363	505	5.9	6.4	8.7	5,384	5,275	5,331
Valdez-Cordova	3,976	3,893	3,926	645	631	629	16.2	16.2	16.0	3,331	3,262	3,297
Interior Region	37,242	37,136	37,921	5,718	6,049	6,006	15.4	16.3	15.8	31,524	31,087	31,915
Fairbanks North Star Bor	31,988	31,936	32,706	4,616	4,943	4,995	14.4	15.5	15.3	27,372	26,993	27,711
Southeast Fairbanks	2,225	2,214	2,292	387	402	431	17.4	18.2	18.8	1,838	1,812	1,861
Yukon-Koyukuk	3,029	2,986	2,923	715	704	580	23.6	23.6	19.8	2,314	2,282	2,343
Northern Region	8,041	7,871	7,999	1,005	919	944	12.5	11.7	11.8	7,036	6,952	7,055
Nome	3,144	3,064	3,160	471	423	480	15.0	13.8	15.2	2,673	2,641	2,680
North Slope Borough	2,772	2,711	2,750	183	153	154	6.6	5.6	5.6	2,589	2,558	2,596
Northwest Arctic Bor	2,125	2,096	2,089	351	343	310	16.5	16.4	14.8	1,774	1,753	1,779

Southeast Region	31,969	31,285	32,071	3,860	3,927	4,195	12.1	12.6	13.1	28,109	27,358	27,876
Haines Borough	912	887	930	153	148	177	16.8	16.7	19.0	759	739	753
Juneau Borough	13,587	13,215	13,724	1,130	1,090	1,370	8.3	8.2	10.0	12,457	12,125	12,354
Ketchikan Gateway Bor	6,420	6,223	6,462	758	712	847	11.8	11.4	13.1	5,662	5,511	5,615
Pr. of Wales-Outer Ketch	2,361	2,398	2,333	443	531	431	18.8	22.1	18.5	1,918	1,867	1,902
Sitka Borough	3,689	3,627	3,775	340	368	454	9.2	10.1	12.0	3,349	3,259	3,321
Skagway-Yakutat-Angoon	1,601	1,597	1,580	398	427	387	24.9	26.7	24.5	1,203	1,170	1,193
Wrangell-Petersburg	3,399	3,338	3,267	638	651	529	18.8	19.5	16.2	2,761	2,687	2,738
Southwest Region	11,080	10,797	10,684	1,099	993	987	9.9	9.2	9.2	9,981	9,804	9,697
Aleutian Islands	2,781	2,728	2,670	115	110	80	4.1	4.0	3.0	2,666	2,618	2,590
Bethel	4,415	4,275	4,319	454	384	471	10.3	9.0	10.9	3,961	3,891	3,848
Bristol Bay Borough	441	441	426	61	67	56	13.8	15.2	13.1	380	374	370
Dillingham	2,005	1,964	1,879	240	230	164	12.0	11.7	8.7	1,765	1,734	1,715
Wade Hampton	1,438	1,389	1,390	229	202	216	15.9	14.5	15.5	1,209	1,187	1,174

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

				Changes From:	
	p/ 3/87	r/ 2/87	3/86	2/87	3/86
Nonag. Wage & Salary	102,000	101,800	108,200	200	-6,200
Mining	3,450	3,300	4,100	150	-650
Construction	5,500	5,400	6,200	100	-700
Manufacturing	2,100	2,150	2,250	-50	-150
Food & Kindred Prod.	350	400	400	-50	-50
Other Mfg.	1,750	1,750	1,850	0	-100
Trans. Comm. & Utilities	8,850	8,850	8,900	0	-50
Trucking & Whseing.	1,250	1,300	1,250	-50	0
Water Transportation	250	250	250	0	0
Air Transportation	3,000	2,950	2,900	50	100
Other Trans. Comm. & Utilities	4,350	4,350	4,500	0	-150
Trade	24,200	24,150	26,250	50	-2,050
Wholesale	5,450	5,450	6,350	0	-900
Retail	18,750	18,700	19,900	50	-1,150
Gen. Merchandise	1,800	1,800	1,800	0	0
Food Stores	2,950	2,950	2,850	0	100
Eating & Drinking Pl.	7,650	7,600	8,100	50	-450
Other Retail Trade	6,350	6,350	7,150	0	-800
Finance-Ins. & R.E.	7,800	7,900	8,450	-100	-650
Services & Misc.	23,800	23,800	25,250	0	-1,450
Government	26,300	26,250	26,800	50	-500
Federal	10,250	10,200	10,000	50	250
State	7,150	7,100	7,600	50	-450
Local	8,900	8,950	9,200	-50	-300

Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

				Changes From:	
	p/ 3/87	r/ 2/87	3/86	2/87	3/86
Nonag. Wage & Salary	108,600	108,450	115,200	150	-6,600
Mining	3,450	3,300	4,100	150	-650
Construction	5,750	5,600	6,600	150	-850
Manufacturing	2,200	2,200	2,350	0	-150
Trans. Comm. & Utilities	9,550	9,550	9,600	0	-50
Trade	25,750	25,750	27,800	0	-2,050
Finance-Ins. & R.E.	8,350	8,450	9,000	-100	-650
Services & Misc.	24,850	24,950	26,500	-100	-1,650
Government	28,700	28,650	29,250	50	-550

growth in the transportation, communications and utility industry was based in the school bus sector. There were, however, downward fluctuations in 1981 and 1982 due to changes in school bus contracts.

The demand for government services, particularly education, was impacted as a result of the rapid population gains. As the number of school-aged children increased, the need for additional school teachers and support staff was required. Indeed, the vast majority of government employment increases was in the local schools. Demand for various government or quasi-government services also increased with an increase in employment.

Fairbanks/Interior

By Neal Fried

Doyon Region's Employment

Doyon's employment increased in 1986, no modest accomplishment in today's economic environment. In 1986 Alaska's employment fell by 3.8 % and Fairbanks contracted by 5.1%, but Doyon's increased by 3.8% (table 1). The question is how did the Doyon region escape employment declines and experience growth with the rest of the state's economy in trouble?

Table 1
Rural Doyon Region
Employment by Industry
First Nine Months 1985 & 1986

	1985	1986	Percent Change 85-86
Total	3,969	4,119	3.8
Mining	130	141	8.2
Construction	151	144	-4.5
Manufacturing	19	18	-3.0
Trans. Comm. & Utilities	368	361	-2.1
Trade	425	382	-10.1
Wholesale	53	46	-12.7
Retail	372	336	-9.8
Finance-Ins. & Real Estate	62	77	23.7
Services & Misc.	411	533	29.8
Government	2,404	2,465	2.5
Federal	636	660	3.6
State	384	450	17.1
Local	1,383	1,355	-2.0

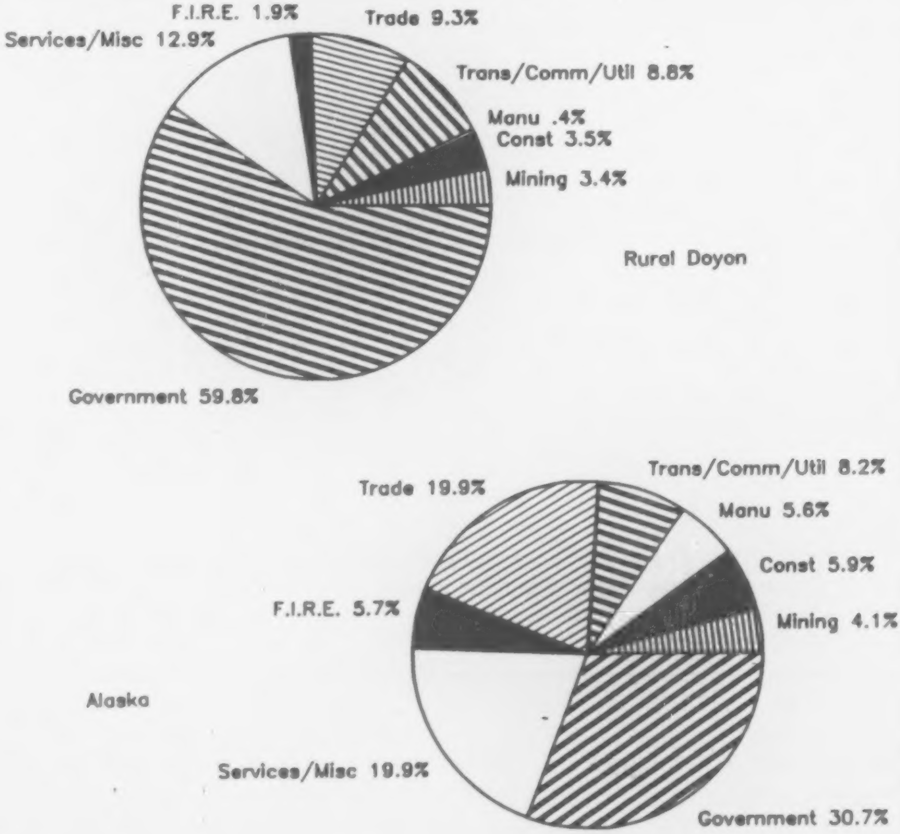
1/ The Rural Doyon Region includes the Southeast Fairbanks and Yukon-Koyukuk Census Areas within the Interior Region. The Fairbanks North Star Borough is not included because it would mask any changes occurring in the remainder of the region.

The answer appears to be related to the area's sizable government employment and the existence of only a small construction work force. In 1986, 60% of Doyon's wage and salary employment was with federal, state or local government and construction employed only 3.5% (see Figure 1).

These proportions are important because the construction industry was responsible for the most of the losses in the statewide economy in 1986. The next question is: Didn't the Doyon area's government employment suffer big losses in 1986 because of the state's budget woes? The answer is no.

While local government employment fell in 1986 by 2%, these losses were more than made up by increases in state and federal government employment. State employment grew because of last year's busy fire fighting season and federal government increased because Fort Greely in Delta added additional personnel.

Figure 1
Rural Doyon Region and Alaska
Employment by Industry, 1986



Local and state government suffered losses during the latter part of 1986, but most of the losses were covered by gains made during the earlier part of the year. In essence the government sector did not propel Doyon's economy ahead but prevented it from the precipitous employment declines experienced elsewhere in the state.

The remaining industries provide a mixed picture. Services employment grow substantially. Some of this growth came from contractors providing services to the military installations and some of the growth came from a change in our recording methodology; therefore part of this growth represents only a paper change and not a real increase.

Construction and mining, two small industries in the area, remained relatively stable over the past two years. Trade (wholesale and retail) employment fell by 10%. Trade lost employment during the earlier part of the year but during the spring and summer months it almost bounced back to 1985's levels because of activity on the Alaska Highway and Denali National Park.

Total traffic on the Alaska Highway increased in 1986, where many of the communities in the Doyon region depend on this traffic for an important share of their economic activity. Trade is a particular beneficiary of highway traffic because people stop to eat, buy gas, and purchase supplies in these communities. Denali National Park experienced a 21% increase in their visitation in 1986 which had a positive impact on trade during the summer months.

The Other Side of the Coin

Though it appears the Doyon region outperformed much of the state in 1986, it would be a misnomer to call it an area of unbridled prosperity. Other indicators a different picture. The region's per capita income is 62% of the statewide average. Approximately 24% of the Doyon area's population lives below the poverty level compared to 11% statewide.

Employment is seasonal and scarce. The labor force participation rate (the percent of the working age population active in the labor force) for the area is 46% compared to the 64% statewide average. The area's unemployment rate in 1986 was 11.5% compared to the statewide average of 9.5%. In other words the area has a great deal of catching up to do before it will be on par with the rest of the state.

The Future

It will be difficult for the Doyon region to sustain growth in 1987. A shrinking state budget will cause additional losses in local and state

Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

	p/ 3/87	r/ 2/87	3/86	Changes From: 2/87	 3/86
Nonag. Wage & Salary	25,400	25,250	26,850	150	-1,450
Mining	100	100	100	0	0
Construction	1,000	1,000	1,100	0	-100
Manufacturing	550	550	550	0	0
Trans. Comm. & Utilities	2,500	2,500	2,450	0	50
Trucking & Whseing.	350	350	350	0	0
Air Transportation	900	900	900	0	0
Other Trans. Comm. & Utilities	1,250	1,250	1,200	0	50
Trade	5,150	5,100	5,550	50	-400
Wholesale	850	850	900	0	-50
Retail	4,300	4,250	4,650	50	-350
Gen. Mer. & Apparel	500	500	500	0	0
Food Stores	750	750	750	0	0
Other Retail Trade	3,050	3,000	3,400	50	-350
Finance-Ins. & R.E.	1,000	1,000	1,100	0	-100
Services & Misc.	5,600	5,550	6,000	50	-400
Government	9,500	9,450	10,000	50	-500
Federal	2,900	2,900	2,750	0	150
State	3,950	3,900	4,250	50	-300
Local	2,650	2,650	3,000	0	-350

Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/ 3/87	r/ 2/87	3/86	Changes From: 2/87	 3/86
Nonag. Wage & Salary	28,950	28,850	30,450	100	-1,500
Mining	200	250	200	-50	0
Construction	1,050	1,050	1,100	0	-50
Manufacturing	550	550	550	0	0
Trans. Comm. & Utilities	2,800	2,850	2,750	-50	50
Trade	5,400	5,350	5,850	50	-450
Finance-Ins. & R.E.	1,100	1,050	1,150	50	-50
Services & Misc.	5,950	5,900	6,400	50	-450
Government	11,900	11,850	12,450	50	-550

government in 1987. Construction will feel the impact of a shrinking capital budget.

One of the bright spots in the area is tourism. Denali National Park is projecting another big increase in their visitation this year. With the new 150 room Harper Lodge opening this season and a number of other park hotel operators expanding their operations, the park will be able to accommodate more tourists.

The gains in tourism and federal government will not be enough to offset the losses brought on by a smaller state budget. The losses are not likely to be dramatic in 1987, but in an area where employment is a scarce commodity, any losses are important.

Current Trends

Fairbanks' economy began to show signs of thawing in March. Wage and salary employment grew for the first time after straight months of seasonal declines. Most industries' employment remained flat but trade, services and government managed to post small gains. Over-the-year comparisons continue to show declined in most of Fairbanks' industries. Fairbanks' unemployment rate of 14.4% also improved in March. This was the third month this year the unemployment rate has remained below 1986 levels. It appears this trend will continue in the future. At the mement it appears this is happening because some of the unemployed are leaving and the rate of employment decline may be moderating. More concrete analysis will be possible as additional information becomes available.

Gulf Coast

By Neal Fried

Unemployment in the Kenai Peninsula Borough

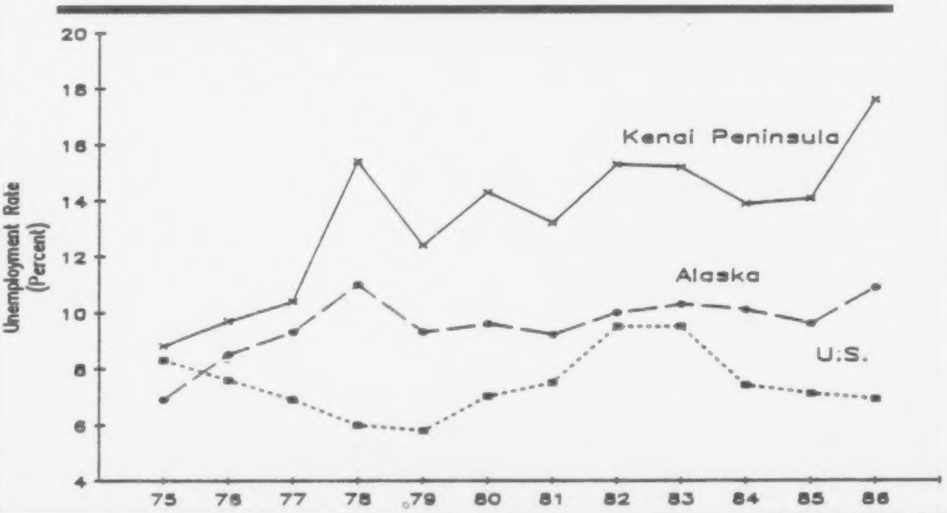
The Kenai Peninsula Borough's unemployment rate for March was 19.1%, well above the statewide average of 11.8% and almost three times as high as the national average of 6.9%. In 1986 the borough recorded the highest annual average unemployment rate in the state (17.6%). The 1986 rate was the highest unemployment rate in the borough since 1975, when comparable unemployment rates were first recorded (see figure 1).

Borough residents during the past year have been constantly reminded of these less than flattering statistics when they are reported monthly in the media. What does the borough unemployment rate really represent and does it provide an accurate portrayal of the area's economy?

Definition of Unemployment

Before answering these questions a brief definition of the unemployment rate is in order because the item conjures up so many misconceptions. To be counted as unemployed, a person must not have a

Figure 1
Unemployment Rates 1975–1986
Kenai Peninsula, Alaska, and U.S.



job and must be available and actively making an effort to find employment. The term does not include only those individuals collecting unemployment insurance or only those who have visited local employment centers but anyone without a job and seeking work. For example when high school students begin looking for work after the end of the school year, they are captured in the unemployed figures though they are not eligible for unemployment insurance. Monthly statewide surveys are performed to supplement administrative and other data used to calculate the number of the unemployed.

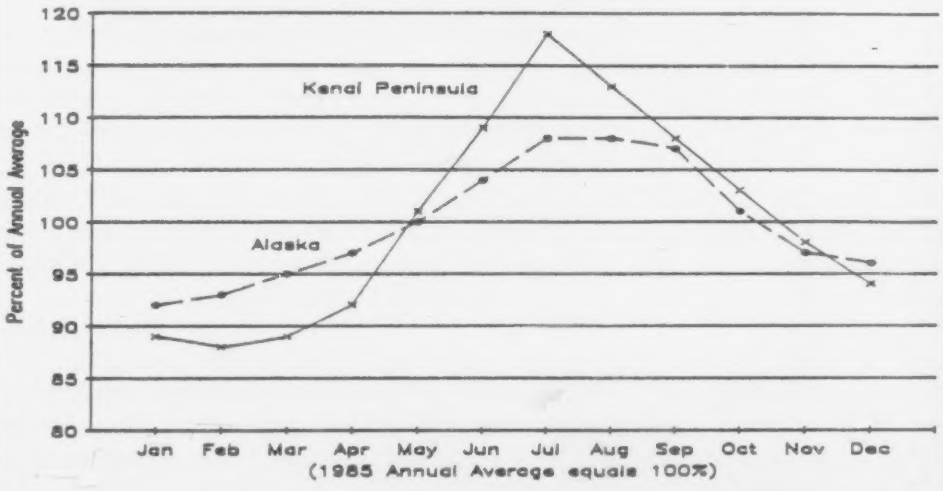
The group that is excluded from the unemployment figures are the discouraged workers—those people who have given up seeking employment because they do not believe work is available.

Seasonal Impacts

During the past 12 months the borough's unemployment rate has ranged from a low of 13.9% in August to a high of 20.7% in April. The difference between these two figures are explained in part by the seasonal nature of the borough's industries.

Though the borough probably has one of the most diverse economies in the state, seasonal industries dominate. Fishing, tourism, and construction are all seasonal industries, which means a large segment of the population works only part of the year. For example in 1986, 7.5% of the borough's wage and salary work force was employed in

Figure 2
Seasonality of Employment
Kenai Peninsula Borough and Alaska, 1986



construction, but 26.4% of all the unemployment insurance claimants were filed by individuals previously employed in the construction industry.

Another way to look at seasonality is monthly employment expressed as a percentage of the annual average employment as illustrated in figure 2. Over the period of a year the Kenai Peninsula's total wage and salary employment can range from a low of 88% to a high of 118% of the annual average employment. Statewide employment's high and low are 92% and 108% of the yearly average respectively. Particular industries such as fish processing employment levels range from a low of 21% percent to a high of 360%. As long as seasonal industries play such an important role in the borough's economy, the Peninsula's unemployment rate will remain higher than average.

A Deteriorating Economy

Seasonality alone does not explain the Kenai Peninsula Borough's persistent high unemployment rate. The borough's deteriorating economy in 1986 also contributed significantly to the higher rate. After five years of strong employment growth, employment fell by 4% in 1986. The annual average unemployment rate grew from 14.1% in 1985 to 17.6% in 1986.

As the economy deteriorated, the number of unemployed increased by 700 to a historical record high of 3,000 unemployed residents on the peninsula. The number of unemployment insurance recipients increased by 36.6% in the 1986 federal fiscal year (October 1985-September 1986) and the number of dollars in unemployment insurance benefits paid out in the borough grew from $8.8 million in 1985 to $13.2 million in 1986, making it the largest increase in the state.

Unemployment Rates Do Not Explain Everything

The rapid decline in the economy pushed unemployment rates higher throughout the state in 1986, but higher unemployment rates are not always accompanied by a declining economy. For example, in 1982 the number of jobs on the peninsula grew by 8.1% but the unemployment rate increased from 13.2% in 1981 to 15.3% in 1982. This occurred because the national recession encouraged residents from other states to seek employment in Alaska and on the Kenai Peninsula. Their numbers were so large that they essentially overwhelmed the local labor market, pushing the unemployment rate higher.

In this case if the unemployment rate was used as the lone indicator of the health of the peninsula's economy, a casual observer would have concluded the area was economically depressed when in reality its economy was booming. Though unemployment rates were high

Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

				Changes From:	
	p/ 3/87	r/ 2/87	3/86	2/87	3/86
Nonag. Wage & Salary	18,150	18,000	18,550	150	-400
Mining	850	850	1,000	0	-150
Construction	800	800	950	0	-150
Manufacturing	2,550	2,400	2,150	150	400
Food & Kindred Prod.	1,950	1,800	1,550	150	400
All Other Mfg.	600	600	600	0	0
Trans. Comm. & Utilities	1,400	1,350	1,500	50	-100
Trade	3,100	3,100	3,250	0	-150
Wholesale	450	450	450	0	0
Retail	2,650	2,650	2,800	0	-150
Finance-Ins. & R.E.	650	650	650	0	0
Services & Misc.	3,200	3,150	3,200	50	0
Government	5,600	5,700	5,850	-100	-250
Federal	600	600	550	0	50
State	1,450	1,500	1,600	-50	-150
Local	3,550	3,600	3,700	-50	-150

throughout the early eighties on the peninsula, a growing employment base meant new job opportunities were being created (3,815 new jobs were created between 1980-1985). Room for advancement was plentiful and workers often changed jobs creating a fluid labor market.

By the same token the unemployment rate does not necessarily reveal all the negatives of high unemployment—particularly in today's labor market - because 1) individuals currently employed become reluctant to change jobs because of the economic uncertainty created in a declining labor market with fewer new job opportunities, 2) the seasonal worker is no longer assured of finding employment, 3) the new job seeker may find it difficult to find employment, 4) workers already employed are not sure they will remain employed, 5) employed workers are now underemployed, working part-time and in jobs for which they are overqualified, and 6) the number of discouraged workers tends to grow during a period of economic contraction.

Conclusions

During the first quarter of 1987 the unemployment picture on the Kenai Peninsula has been mixed. The figures in January and February were higher than during the same months in 1986, but March's figures indicate some improvement. Employment on the peninsula is expected to continue to decline in 1987, therefore no major rebound in the unemployment picture is anticipated. If the unemployment rate improves this year, it will most likely be a result of the unemployed leaving and not a result of an improved economy.

The unemployment rate should be used with other information when assessing the health of an economy. Using only the unemployment rate it becomes easy to make erroneous conclusions. Only in tandem with other economic indicators can the unemployment rate help portray an accurate picture of the Kenai Peninsula's economy.

Current Trends

The Gulf Coast labor force figures for March remained mixed. Kodiak's unemployment rate of 5.9% was the second lowest rate in the state and the Kenai Peninsula Borough's unemployment rate of 19.1% was the third highest in the state. The Valdez-Cordova rate of 16.2% remained unchanged from February. Kodiak's very active bottom fishery kept its unemployment figures low and falling. The peninsula's rate remained high but it is showing some signs of seasonal improvement. As the fishing industry begins to move into high gear and the tourism and construction seasons begin to stir, the Gulf Coast's unemployment rates will show greater signs of improvement in the coming months.

Southeast Alaska

By John Boucher

Services Employment in Southeast Alaska, 1982-1986

Each month estimates for Southeast Alaska industry employment are published in *Alaska Economic Trends*. These employment estimates are located in the nonagricultural wage and salary table for Southeast Alaska in the table on page 40. Estimates are published for seven major industry categories and eight subindustry categories.

Of these fifteen industry and subindustry categories, nearly every industry title helps define the type of employment associated with the estimate. For example, it is relatively easy to associate a type of employment or activity to construction or retail trade. Services, however, is one industry which cannot be characterized by a single activity or type of employment but which represents a diversity of jobs.

For the past decade, economists have pointed to the services industry as one of the fastest growth industries in both the state and national economies. Southeast Alaska is no exception to this trend. In 1975, the annual average employment in the services industry was 2,151. This made services the fifth largest employer in Southeast Alaska after state government, local government, lumber and paper products, and retail trade. By 1986, services employment had more than doubled to 4,500 and services was the second largest employer in Southeast Alaska behind state government.

What kind of employment is services and where is this employment growth being generated? To help answer these questions, the services industry was examined during the last five years.

Service industry employment was divided into eighteen different categories to illustrate the growth in Southeast Alaska's services industry. In most other regions of the state, the mining industry warrants a separate industry classification, however since mining is a relatively small size in Southeast Alaska it is lumped into services. For the purposes of this article, the mining industry's portion of services will not be included as services employment.

Even excluding the mining industry, services employment contains a broad range of occupations and activities. As table 1 shows, services employment contains a grab bag of activities; doctors, lawyers, architects, mechanics, social workers, movie theater employees, and chamber of commerce personnel are just a few activities included in service industry employment. Since there is such a varied number of activities, the reason behind any growth in employment can be as varied as the industry itself. A look at employment gives some indication of where activity is occurring and may give some insight into why it is occurring.

Table 1
Southeast Alaska Services, & Miscellaneous
Average Employment 1982-86

	1982	**1983**	**1984**	**1985**	**3 qtr.[1] 1986**	**% change 82-85**
Hotel & Motel	592	730	775	801	746	35.30
Personal Services	110	124	142	169	172	53.64
Business Services	509	413	397	417	451	-18.07
Auto Repair	66	70	77	77	82	16.67
Misc. Repair	55	67	68	62	66	12.73
Motion Picture	66	75	80	71	73	7.58
Amusement & Recreation	71	115	135	152	138	114.08
Health Services	674	744	775	782	855	16.02
Legal Services	145	158	171	178	174	22.76
Educational Services	*	*	173	181	147	*
Social Services	594	568	619	634	637	6.73
Museums, Art Galleries & Botanical Gardens	*	*	*	*	*	*
Membership Organizations	487	625	600	566	624	16.22
Private Households	*	*	*	*	*	*
Misc. Services	260	268	316	298	285	14.62
Agricultural Services	*	*	*	24	37	*
Nonclassified	75	148	155	55	84	-26.67
Services & Misc.	3,833	4,261	4,506	4,471	4,576	16.64

1/ 1986 employment estimated from 3 quarters of ES-202 data.

* Nondisclosable

From 1982 to 1985, services employment grew 16.6% or 638 jobs. A good portion of the growth in services employment during the period occurred from 1982 to 1984 when the Alaskan economy was in a stage of rapid growth. For some segments of the services industry growth during this phase was phenomenal, in some segments it was merely good and a few segments of services employment did not perform very well during this period.

The categories of services employment which experienced phenomenal growth from 1982 to 1985 were amusement and recreation services, educational services, personal services and hotel and motel employment. Growth in amusement and recreation services, personal services and educational services employment was related to increasing incomes and growing population in the region during the early 1980s. A growing hotel and motel industry was in response to these two factors as well as an increasing number of tourists visiting Southeast Alaska.

The categories of services employment which experienced moderate growth were auto and miscellaneous repair, health services, legal services, membership organizations and miscellaneous services. These categories of the service industry tend to be more sensitive to population than income charges, and that may be why growth in these industries has been moderate in comparison to other services employment categories.

Increasing incomes may have had a dampening effect on the growth of some service industries. Growth in auto and miscellaneous repair employment, for example, would be restrained by rising incomes because consumers would tend to purchase new automobiles and other durable goods rather than trying to extend the life of their existing automobiles and appliances.

The categories of employment that had the smallest growth in employment during the early 1980s were motion picture employment, social services and business services. It is interesting to note though that the only category to lose employment during this period was business services.

Motion picture employment in Southeast Alaska is largely theater employees. In the past ten years the rise of cable television and home video players have cut into theater attendance. Social services and business services are both highly dependent on state funding and state contracts and that is why they lagged the other categories of services in terms of employment growth.

Service Industry Wages

An examination of wage data in the services industry does not paint as bright a picture of the overall industry as employment might indicate (see tables 2 & 3). While total services employment (not including mining) increased 16.6% from 1982 to 1985, total wages paid increased only 12.1%. Looking at annual average wage (total wages paid divided by annual average employment) there is cause for more concern as the average annual wage in the services industry dropped 3.8% from 1982 to 1985.

Table 2
Southeast Alaska Services, & Miscellaneous
Total Wages 1982-85
(in thousands)

	1982	1983	1984	1985	% change 82-85
Hotel & Motel	$ 7,397	$ 9,220	$10,110	$ 9,866	33.39
Personal Services	1,329	1,567	1,674	1,866	40.40
Business Services	10,467	7,942	7,877	6,912	-33.96
Auto Repair	958	945	1,139	1,221	27.41
Misc. Repair	1,207	1,412	1,484	1,333	10.45
Motion Pictures	458	649	636	637	39.00
Amusement & Recreation	722	1,245	1,522	1,478	104.88
Health Services	15,220	16,454	16,433	16,073	5.60
Legal Services	4,809	5,673	7,121	5,930	23.31
Educational Services	*	*	2,496	2,747	*
Social Services	7,824	7,446	7,982	8,461	8.14
Museums Art Galleries & Botanical Gardens	*	*	*	*	*
Membership Organ.	7,381	9,147	9,131	9,402	27.38
Private Households	*	*	*	*	*
Misc. Services	6,921	7,388	9,188	8,702	25.72
Agricultural Services	*	*	*	395	*
Nonclassified	1,012	2,269	2,048	637	-37.03
Services & Misc.	67,454	73,701	79,261	75,651	12.15

*Nondisclosable

There are myriad reasons for the drop in the annual average wage in the services industry. First employment growth has tended to occur in the lower paying industries. Hotel and motel employment, amusement and recreation services, educational services and personal services are all in the lower third of the industry in terms of annual average wages. Also some of this employment, especially those services which cater to the tourism market such as hotel and motel employment, do not provide year-round employment or have a greater percentage of part-time employees.

Service Employment Outlook

The Southeast Alaska Employment forecast, in the April issue of *Alaska Economic Trends*, forecast a relatively moderate drop in services employment during 1987 and 1988. Unfortunately that forecast included the mining industry, which is expected to grow slightly, and therefore does not paint an accurate picture of what will occur in the

Table 3
Southeast Alaska Services & Miscellaneous Average Annual Wage 1982-85 3/

	1982	1983	1984	1985	% change 82-85
Hotel & Motel	$12,494	$12,630	$13,046	$12,317	-1.42
Personal Services	12,084	12,635	11,786	11,042	-8.62
Business Services	20,563	19,231	19,842	16,575	-19.39
Auto Repair	14,516	13,502	14,792	15,853	9.21
Misc. Repair	21,950	21,072	21,820	21,506	-2.02
Motion Pictures	6,945	8,651	7,949	8,974	29.21
Amusement & Recreation	10,163	10,822	11,277	9,726	-4.30
Health Services	22,582	22,116	21,204	20,554	-8.98
Legal Services	33,167	35,908	41,641	33,316	0.45
Educational Services	*	*	14,428	15,179	*
Social Services	13,172	13,109	12,894	13,345	1.32
Museums, Art Galleries & Botanical Gardens	*	*	*	*	*
Membership Organizations	15,156	14,635	15,218	16,612	9.60
Private Households	*	*	*	*	*
Misc. Services	26,621	27,565	29,077	29,200	9.69
Agricultural Services	*	*	*	14,806	*
Nonclassified	13,493	15,333	13,212	11,587	-14.13
Services & Misc.	17,598	17,297	17,590	16,920	-3.85

3/ Annual Average Wage is Total Wages divided by annual average employment.

true service industries. Population and income in Southeast Alaska are expected to decline during the next two years and services employment will tend to decline with it. It is expected that those categories more sensitive to income than population will shoulder more of the burden of the loss in employment because income is expected to drop more than population. If income levels were to be maintained, however, the services industry could be in for some small employment gains during the next two years.

Current Trends

Southeast Alaska industry employment increased by slightly less than 2% in the month of March. There were small to moderate employment increases in just about every industry, a sign that the region is starting to come out the slow winter season.

Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

				Changes From:	
	p/ 3/87	r/ 2/87	3/86	2/87	3/86
Nonag. Wage & Salary	26,550	26,000	27,350	550	-800
Construction	850	750	900	100	-50
Manufacturing	2,800	2,750	2,700	50	100
Food & Kindred Prod.	450	450	450	0	0
Lumber & Paper Prod.	2,150	2,100	2,050	50	100
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	1,900	1,850	1,800	50	100
Trade	4,000	3,950	4,100	50	-100
Wholesale	300	300	350	0	-50
Retail	3,700	3,650	3,750	50	-50
Finance-Ins. & R.E.	1,100	1,100	1,100	0	0
Mining, Services & Misc.	4,350	4,150	4,550	200	-200
Government	11,550	11,450	12,200	100	-650
Federal	2,000	1,950	2,000	50	0
State	5,150	5,150	5,650	0	-500
Local	4,400	4,350	4,550	50	-150

Hours and Earnings

By John Boucher

Hours Fall in Mining, Increase in Manufacturing

March hours and earnings data indicate a drop of two hours in the mining sector as oil and gas firms cut back hours worked on the North Slope. Hourly earnings in the mining industry remained close to February's level but the drop in hours translated into smaller weekly paychecks in the mining industry.

Declines in hours worked occurred in other industries including transportation and finance, insurance and real estate. The drop in hours in both transportation and finance, insurance and real estate was broad based and included nearly all the major sectors of the industry.

On the other hand, hours in the manufacturing industry increased on the strength of the food and kindred products sector. Seafood processors in the Gulf Coast and Southwest regions were processing bottomfish during the month, so much so that some plants were working twice the amount of overtime that they did last March. The result was an increase of more than eight hours per week in the food and kindred products sector as well as increases in average hourly earnings and average weekly earnings in the industry.

Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 3/87	R/ 2/87	3/86	P/ 3/87	R/ 2/87	3/86	P/ 3/87	R/ 2/87	3/86
Mining	1,130.14	1,184.23	1,230.45	48.4	50.5	52.9	23.35	23.45	23.26
Construction	925.51	927.71	1,021.64	40.1	40.6	42.8	23.08	22.85	23.87
Manufacturing	501.40	468.47	510.08	43.6	39.6	42.9	11.50	11.83	11.89
Food & Kindred Prod	364.10	284.19	311.83	46.8	38.3	41.8	7.78	7.42	7.46
Lumber & Paper Prod	647.36	647.09	707.50	43.8	44.2	49.2	14.78	14.64	14.38
Trans., Comm. & Utilities	514.97	525.89	549.69	34.4	35.2	36.5	14.97	14.94	15.06
Trade	378.67	384.38	382.91	33.6	33.6	33.5	11.27	11.44	11.43
Wholesale	534.87	549.38	520.71	37.8	37.5	38.6	14.15	14.65	13.49
Retail	323.57	327.84	330.12	32.1	32.3	31.5	10.08	10.15	10.48
Finance-Ins. & R.E	400.29	428.55	402.88	33.0	34.7	34.2	12.13	12.35	11.78

Benchmark March 1986

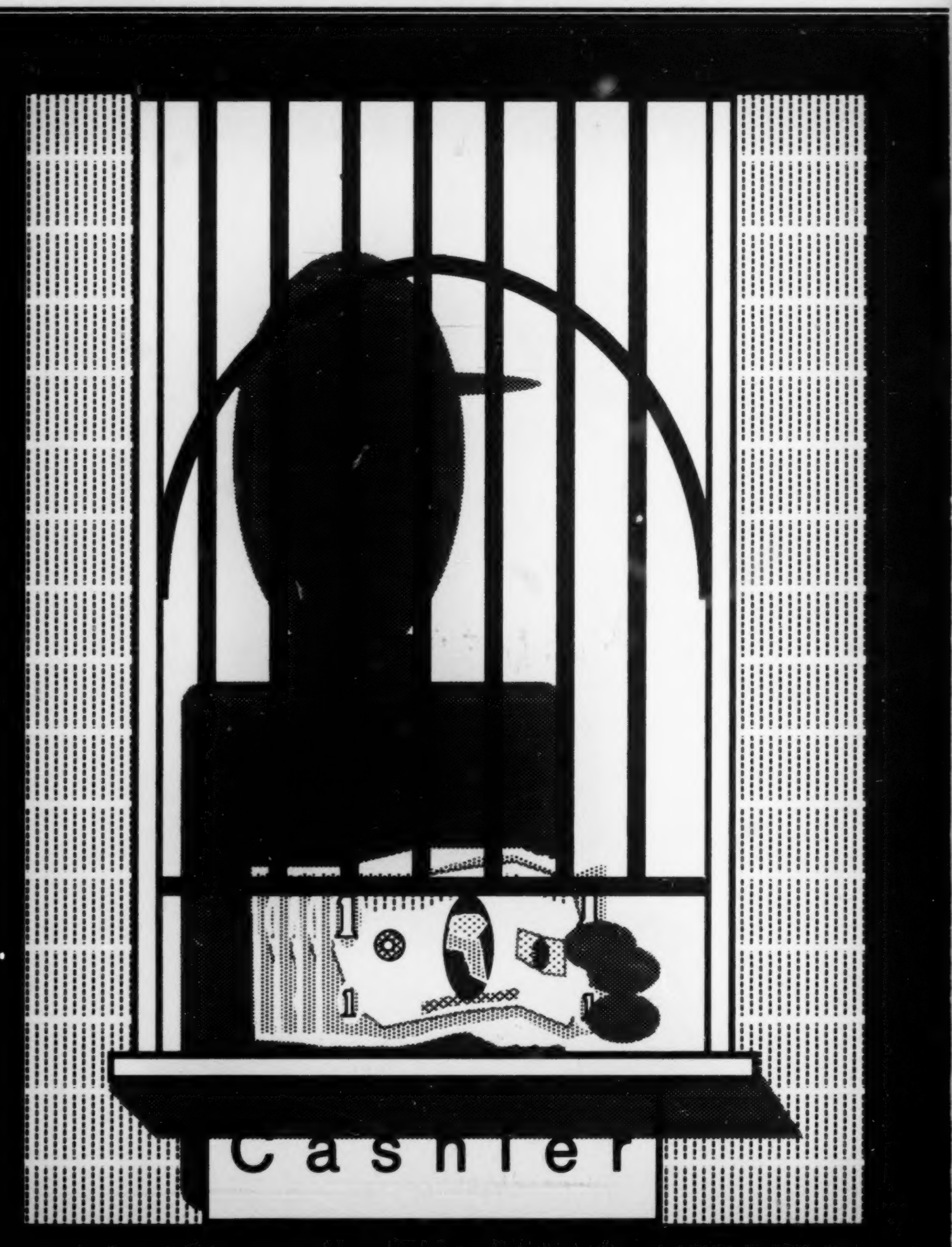
1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor
2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

JUNE 1987

ALASKA ECONOMIC TRENDS

Alaska Department of Labor Steve Cowper, Governor, State of Alaska



Alaska Economic Trends

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The following notes pertain to Nonagricultural Wage and Salary Emplo ment Tables:

Government includes teachers in primary and secondary schools, and pe sonnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Alaska Wage Rates

By John Van Houten

Everyone is interested in how much they earn and how that compares to other workers in the same occupation. Many jobseekers want to know if wages in other areas of Alaska will compensate them for the higher cost of living. New employers in Alaska are interested in what they will have to pay to attract qualified workers to their firm. Individuals interested in a career change want to know not only the employment opportunities associated with that career, but what that career will pay. As a result there is considerable demand for wage rate information.

Sources

Although there is no single source of all wage rate data there is a good likelihood that users can find the wage rates they need from among the four major published sources. The four sources are: 1) Alaska Department of Labor, Research and Analysis' annual *Alaska Wage Rates*, 2) compilations of wage rates offered by employers who have placed job orders at Job Service offices throughout Alaska, 3) the Bureau of Labor Statistics' *Area Wage Survey, Alaska*, and 4) the Alaska Department of Labor pamphlet No. 600, *Labors' and Mechanics' Minimum Rates of Pay*. 1/

Research and Analysis' annual wage rate survey provides rates for more than 200 occupations. The rates are from employers' pay schedules. They are compiled for Alaska statewide and six geographic regions.

Data from Alaska Job Service job orders are compiled and published for about 200 occupations. The rates are those which have been offered; the job openings may have gone unfilled or possibly were filled at negotiated higher rates. Job Service wage rates are published for Alaska statewide and for the local Job Service offices. In addition to those published, more detailed information is available for more than 1,200 specific Dictionary of Occupational Titles (DOT) codes and are available on request.

1/ Copies of these publications are available from the Department of Labor, Research and Analysis Section. The wage rates in Pamphlet No. 600, *Laborers' and Mechanics' Rates of Pay*, are prevailing union rates. Wage rates requested for specific occupations not listed in these sources may be available at Research and Analysis. Inquiries are invited.

it had the highest proportion of nonresident employees (38% in 1985) (table 7).

- Alaska has unique economic conditions compared to other states. In 1985, Alaska had the fifth highest overall unemployment rate in the nation, the third highest for all nonagricultural industries, the highest in manufacturing and government, and the sixth highest in construction. Alaska also had one of the highest unemployment rates in the nation for many major occupational categories.
- Nearly 22% of all regular unemployment insurance benefits paid by Alaska in 1985 were mailed to out-of-state addresses. This is the highest interstate rate in the nation, approximately 4.5 times the national average. Seventy-four percent of those interstate payments were to nonresidents.

Sources and Limitations of Data

Wage and employee data were developed by crossmatching 1985 wage records from the Alaska Department of Labor with 1985 and 1986 permanent fund dividend records from the Alaska Department of Revenue. Workers were considered residents if they received a 1985 dividend or filed for a 1986 dividend.

Data (except where otherwise stated) were drawn from Alaska Department of Labor wage records, and as such, do not include federal employees or workers who are not covered by unemployment insurance. Employees not covered by unemployment insurance include self-employed workers, most fishermen, full commission salespersons, agricultural workers, domestic workers, unpaid family workers, private railroad workers, elected and appointed public officials, and some employed students.

This report provides data about **employees**, not **employment**. **Employees** are the individual people who worked for wages during a specific period of time; **employment** is the number of filled jobs at a particular point in time. Because not all jobs are filled throughout the year and different individuals may work in the same position at different periods of time, **employee** counts exceed **employment** totals given in other publications, especially when comparing annual data. Approximately 70% more individuals work in Alaska over a year's time than the annual average number of jobs.

Employees and wages are counted in the census area of the employer's primary business location even though employees may actually work in another part of the state. This seriously skews the data for state government workers. Consequently, state workers are included in statewide data but excluded from region and census area data. Also,

Table 1
Total Resident and Nonresident Wages For Each Quarter and Year Alaska 1984 and 1985

	1984 Resident	1984 Nonresident		1985 Resident	1985 Nonresident	
	Wages (thous)	Wages (thous)	% of Total	Wages (thous)	Wages (thous)	% of Total
Anytime During the Year	$5,105,893	$677,088	11.7	$5,207,993	$691,726	11.7
1st Quarter	1,179,066	149,236	11.2	1,205,671	137,084	10.2
2nd Quarter	1,277,718	169,161	11.7	1,324,940	170,319	11.4
3rd Quarter	1,335,162	222,936	14.3	1,342,319	236,533	15.0
4th Quarter	1,313,947	135,755	9.4	1,335,063	147,790	10.0

Source: Alaska Department of Labor, Research and Analysis

Table 2
Total Resident and Nonresident Employees for Each Quarter and Year Alaska 1984 and 1985

	1984 Resident	1984 Nonresident		1985 Resident	1985 Nonresident	
	Number of Employees	Number of Employees	% of Total	Number of Employees	Number of Employees	% of Total
Anytime During the Year	256,143	71,076	21.7	252,058	77,126	23.4
1st Quarter	182,713	25,130	12.1	188,085	25,977	12.1
2nd Quarter	201,381	35,785	15.1	204,953	39,120	16.0
3rd Quarter	213,295	44,769	17.3	212,155	49,503	18.9
4th Quarter	201,867	28,524	12.4	200,601	31,790	13.7

Source: Alaska Department of Labor, Research and Analysis

employees and wages are counted in the industry of the employer from whom they earned the most wages.

Displacement of Resident Workers

As part of the study, an analysis of the displacement of workers in the construction industry was prepared. Evidence compiled suggests that in some occupations there were qualified Alaskans available to fill many of the positions occupied by nonresident workers in 1984 and 1985.

Table 8 and 9 lists the estimated number of nonresidents working in selected construction occupations during each calendar quarter of 1984 and 1985, and the number of Alaska residents with experience in those occupations who collected unemployment insurance compensation during that same quarter. This information provides a general indication of displacement of residents by nonresidents.

The data in Table 8 and 9 show that during each quarter of 1984 and 1985 there were several thousand Alaskans receiving unemployment insurance benefits who may have been qualified to fill positions occupied by nonresidents. The figures tend to overstate the number of nonresidents working and the number of residents qualified and available for work at any given time. Many of the positions held by nonresidents, however, were not highly skilled or highly technical and could probably have been filled by unemployed Alaskans.

Status of Resident Hire Employment Preferences

In 1986, the Fourteenth Alaska Legislature passed a resident hire statute for public-funded construction; the statute is complex and substantially different from previous versions. The legislature emphasized the need to pass a law that would withstand a test of its constitutionality. Consequently, the new statute uses a very targeted approach based on detailed statistical information.

Before any hiring preferences can be implemented, determinations must be made as to which geographic areas of the state qualify for preference based on specific criteria. Three distinct types of data are required: data about overall economic conditions, specific data about the displacement of resident workers by nonresidents, and data about the social and economic consequences of unemployment. Before determinations can be made, regulations must be approved and data compiled.

At this time, regulations have been drafted and reviewed through the public hearing process but not finalized. Data have been compiled which illustrate the overall economic condition of each area of the

Table 3
Total Quarters Worked in Alaska
1984 and 1985

Total Quarters	1984		1985	
Worked	Resident	Nonresident	Resident	Nonresident
One Quarter	14.4%	45.4%	11.0%	44.8%
Two Quarters	16.4%	29.3%	14.9%	29.9%
Three Quarters	15.6%	14.1%	16.4%	14.5%
Four Quarters	53.6%	11.2%	57.6%	10.9%

Source: Alaska Department of Labor, Research and Analysis

Table 4
Ten Industries with the Highest Wages Paid to Nonresidents
Alaska 1984 and 1985

	1984 Resident		1985 Nonresident	
Standard Industrial Classification (SIC)	Wages (thous)	Rank	Wages (thous)	Rank
Heavy Construction	$105,154	1	$ 74,009	2
Oil and Gas	71,585	2	106,646	1
Food Processing	58,079	3	61,964	3
Special Trades Construction	51,096	4	41,574	4
Building Construction	45,439	5	34,146	5
Business Services	29,731	6	33,222	6
Local Government	28,135	7	31,747	7
Miscellaneous Services	26,942	8	23,410	10
Eating and Drinking Places	24,477	9	27,111	9
Air Transportation	22,157	10	22,165	11
State Government	20,171	11	28,217	8

Source: Alaska Department of Labor, Research and Analysis

For a more detailed analysis of the impact of nonresidents in 1985 see *Nonresidents Working in Alaska in 1985*, January 1987. For an analysis of the impact of nonresidents in 1984 see *Nonresidents Working in Alaska: A Special Study to Measure the Economic Impact of Nonresidents on Alaska's Economy During Calendar Year 1984*, January 1986. For information on the history of the resident hire issue see *Alaska Economic Trends, August 1985.*

Table 5
Ten Industries With Over $1 Million in Wages and the Highest Percentage of Wages Paid to Nonresidents
Alaska 1984 and 1985

	1984				1985			
	Resident	Nonresident			Resident	Nonresident		
Standard Industrial Classification (SIC)	Wages (thous)	Wages (thous)	% of Total	Rank	Wages (thous)	Wages (thous)	% of Total	Rank
Food Processing	$ 50,904	$ 58,079	53	1	$ 50,462	$61,964	55	1
Nonclassifiable 2/	6,729	3,088	31	2	11,082	4,702	30	3
Heavy Construction	254,276	105,154	29	3	199,691	74,009	27	7
Miscellaneous Repair	15,684	6,483	29	4	15,408	5,140	25	8
Metal Mining 1/	13,210	4,895	27	5	12,621	5,046	29	4
Fishing, Hunting, Trapping 1/	3,374	1,172	26	6	4,069	2,175	35	2
Nonmetal/Nonfuel Mining	x	x	x	7	x	x	27	6
Logging	25,441	7,928	24	8	28,916	10,898	27	5
Agricultural Services	4,688	1,303	22	9	5,684	1205	17	15
Building Construction	187,022	45,439	20	10	143,687	34146	19	12
Transportation Equip Mfg	1,807	435	19	11	2,217	605	21	10
Water Transportation	38,390	8,583	18	12	37,733	10,401	22	9

Source: Alaska Department of Labor, Research and Analysis

Note: "x" indicates that information is nondisclosable.
1/ Data include only nonagricultural wage and salary employees covered by unemployment insurance. Consequently, data provided for this industry may not be representative of the industry as a whole.
2/ Not classified in any other industry.

Table 6
Ten Industries With Over 200 Employees and the Highest Percentage of Nonresident Employees
Alaska 1984 and 1985

Standard Industrial Classification (SIC)	1984 Resident Number of Employees	1984 Nonresident Number of Employees	1984 Nonresident % of Total	1984 Rank	1985 Resident Number of Employees	1985 Nonresident Number of Employees	1985 Nonresident % of Total	1985 Rank
Food Processing	6,615	12,068	65	1	6,431	13,512	68	1
Nonclassifiable 2/	920	767	45	2	1,119	608	35	5
Metal Mining 1/	611	373	38	3	511	326	39	4
Logging	1,204	715	37	4	1,296	864	40	3
Fishing, Hunting, Trapping 1/	330	177	35	5	348	285	45	2
Heavy Construction	8,800	4,094	32	6	7,182	3,770	32	12
Eating and Drinking Places	17,376	7,473	30	7	17,793	8,838	33	8
Nonmetal/Nonfuel Mining	x	x	x	8	x	x	35	6
Business Services	9,294	3,990	30	9	9,670	3,926	29	17
Agricultural Services	499	207	29	10	538	242	31	13
Recreation Services	1,369	553	29	11	1,566	773	33	9
Motion Pictures	491	125	20	27	375	178	32	10
Transportation Equip Mfg	123	66	35	*	146	77	35	7

Source: Alaska Department of Labor, Research and Analysis

Note: "x" indicates that information is nondisclosable.
Note: "*" indicates that the total number of employees was not large enough to meet the minimum cut off for ranking on this table.
1/ Data include only nonagricultural wage and salary employees covered by unemployment insurance. Consequently, data provided for this industry may not be representative of the industry as a whole.
2/ Not classified in any other industry.

state; however, data about occupational supply and demand are not currently available in enough detail to demonstrate that nonresident workers have displaced qualified, available resident workers in specific occupations and specific areas of the state. Consequently, the Department of Labor has begun implementation of a new system designed to collect the required information. Data about the social and economic impact of unemployment are available through a variety of sources which will be analyzed in depth later this year. The department expects to be able to make determinations for most construction-related occupations by January 1988.

Employer Comments on Resident Hire

In 1986 the Alaska Department of Labor surveyed a small number of employers in ten industries which paid high amounts of wages to nonresidents in 1984 and 1985. The purpose of this survey was to learn reasons why employers hire nonresidents and to ask employers for their ideas about ways to promote the hiring of Alaska residents. Firms were selected to represent the extremes within each industry: those with the highest and those with the lowest percentage of nonresident employees and wages. Responses were obtained from a total of 74 firms, with at least six respondents from each selected industry.

Employers were asked to provide reasons why their industry hires nonresidents (unprompted response). Employers were then read a prepared list of possible reasons for hiring nonresidents and asked if any of those reasons applied to their industry (prompted response).

Sixty percent of employers contacted said their industries hire nonresidents because available Alaskans lack required training or experience. This was the most frequently cited reason in construction, mining, and service industries. Thirty-five percent of employers contacted stated that their industries hire nonresidents because there are no Alaskans available, a reason commonly mention by employers in food processing.

Fifty percent of employers contacted stated that their industries hire nonresidents because it is company policy to transfer people within the company, a frequent response by employers in mining industries.

Nineteen percent of employers felt that the ability to pay lower wages was a reason to hire nonresidents. Sixteen percent of employers indicated that nonresidents worked harder or had better work attitudes than residents.

Employers stated they often promote the hiring of residents by having a company resident hire policy; by advertising openings locally;

Table 7
Percent Nonresident Wages and Employees by Geographic Zone
1984 and 1985

	Wages Paid to Nonres as a % of Total		Nonresident Employees as a % of Total	
Geographic Zone	**1984**	**1985**	**1984**	**1985**
Alaska Statewide	12.6	11.7	22.8	23.4
Anchorage-MatSu Region	9.0	9.6	19.2	20.7
Anchorage Borough	9.1	9.7	19.4	20.8
MatSu Borough	7.1	7.0	15.7	18.5
Gulf Coast Region	14.3	14.9	28.5	32.3
Kenai Peninsula Borough	11.9	13.5	22.2	27.3
Kodiak Island Borough	21.8	18.8	39.0	40.2
Valdez-Cordova	14.4	16.9	33.2	37.9
Interior Region	12.7	12.1	21.2	23.2
Fairbanks North Star Borough	13.0	12.3	22.0	24.0
Southeast Fairbanks	8.5	9.8	20.7	20.3
Yukon-Koyukuk	9.2	9.9	13.4	16.0
Northern Region	25.5	22.4	26.9	25.1
Nome	10.0	9.5	13.0	15.0
North Slope Borough	28.0	24.9	33.3	30.5
Northwest Arctic Borough	9.5	7.7	10.8	12.4
Southeast Region	11.2	13.1	23.3	27.2
Haines Borough	11.4	18.0	16.9	32.3
Juneau Borough	8.3	9.3	18.9	21.6
Ketchikan Gateway Borough	9.0	10.8	18.9	22.2
Prince of Wales-Outer Ketchikan	17.3	17.9	27.6	30.5
Sitka Borough	7.9	8.5	16.5	19.4
Skagway-Yakutat-Angoon	25.4	27.6	38.1	43.4
Wrangell-Petersburg	20.2	25.0	38.0	42.7
Southwest Region	24.2	24.2	37.6	37.6
Aleutian Islands	41.6	41.4	62.6	60.9
Bethel	8.4	9.7	12.8	15.5
Bristol Bay Borough	42.7	39.0	60.0	58.8
Dillingham	30.7	30.0	45.6	46.5
Wade Hampton	4.5	6.6	8.8	12.3
Geographic Area Unknown	27.2	39.5	46.4	58.6

Source: Alaska Department of Labor, Research and Analysis
Note: State government wages and employees are excluded from all regions and census areas but included at the statewide level.

Table 8
Nonresidents Employed and Residents Available for Work by Quarter in Selected Construction Occupations Alaska 1984

Occupation Title (Dictionary of Occupational Titles)	Quarter 1		Quarter 2		Quarter 3		Quarter 4	
	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp
MECHANICS/MACHINE REPAIR								
Motor Vehicle Mechanics	128	509	161	392	174	302	131	481
Engine, Transmission Mechanics	81	152	87	117	103	96	87	135
Misc. Machine Repair	57	138	54	115	63	94	49	122
Other Related Occupations	1	5	1	2	1	1	6	1
METAL FABRICATION								
Fitting, Bolting Occupations	81	204	101	193	158	121	114	165
Sheet Metal	90	53	80	64	95	51	71	69
Other Related Occupations	9	22	7	15	8	12	11	22
WELDERS,CUTTERS & RELATED								
Other Related Occupations	137	309	168	266	166	205	136	272
ELECTRICAL INSTALLING & REPAIR								
Transmission, Distrib. Line Inst.	43	133	54	122	87	44	71	95
Installation, Repair Transp. Equip.	5	10	7	10	8	10	6	9
Installation, Repair Lg. Appliance	1	9	7	6	8	6	6	7
Other Related Occupations	33	99	27	87	40	51	38	87
PAINTING, PLASTERING, CEMENTING								
Construction Painters	43	170	54	152	55	114	38	193
Plasterers	24	54	40	50	47	37	33	43
Cement, Concrete Finishers	24	136	101	117	134	50	87	109

EXCAVATING, GRADING, PAVING								
Excavating, Grading	47	283	94	194	111	89	87	238
Paving, Asphalt, & Concrete	5	30	20	28	24	9	11	33
Other Related Occupations	407	1,518	798	1,161	988	608	691	1,351
OTHER CONSTRUCTION OCCUPATIONS								
Carpenters	502	1,855	684	1,692	869	1,058	593	1,524
Brick, Stone, & Tile Setters	9	55	47	54	47	21	33	41
Plumbers, Fitters, & Related Occup.	493	355	530	384	545	281	327	353
Asbestos, Insulation	19	13	27	12	24	12	17	12
Floor Laying, Finishing	9	21	7	18	16	11	6	14
Glaziers	19	18	21	18	16	13	17	16
Roofers	28	77	40	71	64	35	49	59
Other Related Occupations	696	3,440	1,093	3,078	1,264	1,918	811	2,934
MOTOR FREIGHT OCCUPATIONS								
Truck Driver, Heavy	133	1,022	241	854	277	478	207	830
Truck Driver, Light	9	111	14	101	24	69	17	91
OTHER TRANSPORTATION OCCUPATIONS								
Other Related Occupations	5	28	7	25	8	16	6	31
PACKAGING & MATERIALS HANDLING								
Hoisting & Conveying	28	222	80	158	103	119	60	184
Other Related Occupations	38	282	80	218	87	173	55	257
MINERAL EXTRACTION OCCUPATIONS								
Earth Boring, Drilling & Related	28	224	47	191	55	168	49	158
TOTAL FOR SELECTED OCCUPATIONS	3,232	11,557	4,779	9,965	5,669	6,272	3,920	9,936
TOTAL NONRESIDENTS WORKING FOR CONSTRUCTION COMPANIES	4,737		6,706		7,903		5,444	

Source: Alaska Department of Labor, Research and Analysis

Table 9
Nonresidents Employed and Residents Available for Work by Quarter in Selected Construction Occupations Alaska 1985

Occupation Title (Dictionary of Occupational Titles)	Quarter 1		Quarter 2		Quarter 3		Quarter 4	
	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp	Nonres Emp	Res Unemp
MECHANICS/MACHINE REPAIR								
Motor Vehicle Mechanics	86	538	121	661	140	459	96	687
Engine, Transmission Mechanics	23	162	23	214	29	134	20	229
Misc. Machine Repair	6	126	17	172	36	158	20	157
Other Related Occupations	0	4	0	6	0	5	0	5
METAL FABRICATION								
Fitting, Bolting Occupations	39	173	69	207	125	127	86	168
Sheet Metal	49	85	63	104	73	64	51	123
Other Related Occupations	3	24	5	26	14	17	10	19
WELDERS,CUTTERS & RELATED								
Other Related Occupations	116	268	156	352	169	277	107	342
ELECTRICAL INSTALLING & REPAIR								
Transmission, Distrib. Line Inst.	29	95	34	112	81	31	66	80
Installation, Repair Transp. Equip.	3	9	0	10	0	10	0	10
Installation, Repair Lg. Appliance	0	5	0	10	0	9	0	14
Other Related Occupations	16	131	34	163	44	102	40	106
PAINTING, PLASTERING, CEMENTING								
Construction Painters	26	226	40	295	66	181	51	196
Plasterers	16	51	23	87	29	54	10	83
Cement, Concrete Finishers	36	136	81	152	110	60	81	153
EXCAVATING, GRADING, PAVING								
Excavating, Grading	29	229	69	229	66	121	56	235

Paving, Asphalt, & Concrete	3	30	34	30	36	11	25	44
Other Related Occupations	366	1,374	754	1,538	914	788	622	1,719
OTHER CONSTRUCTION OCCUPATIONS								
Carpenters	402	1,951	725	2,348	1,003	1,380	724	1,692
Brick, Stone, & Tile Setters	23	66	40	68	59	32	40	60
Plumbers, Fitters, & Related Occup.	259	485	353	578	435	376	260	505
Asbestos, Insulation	6	23	17	35	29	24	15	20
Floor Laying, Finishing	13	18	11	19	14	17	10	19
Glaziers	16	29	17	31	14	20	10	25
Roofers	23	96	52	122	66	53	45	95
Other Related Occupations	476	3,416	1,061	4,163	1,364	2,576	902	3,370
MOTOR FREIGHT OCCUPATIONS								
Truck Driver, Heavy	96	926	208	1,110	280	623	168	998
Truck Driver, Light	9	146	17	201	22	140	15	165
OTHER TRANSPORTATION OCCUPATIONS								
Other Related Occupations	3	35	5	59	7	59	5	44
PACKAGING & MATERIALS HANDLING								
Hoisting & Conveying	39	244	63	280	81	193	45	343
Other Related Occupations	29	299	58	379	59	254	35	339
MINERAL EXTRACTION OCCUPATIONS								
Earth Boring, Drilling & Related	29	154	58	212	66	170	45	200
TOTAL FOR SELECTED OCCUPATIONS	2,269	11,554	4,208	13,973	5,431	8,525	3,660	12,245
TOTAL NONRESIDENTS WORKING FOR CONSTRUCTION COMPANIES	3,330	5,803	7,378	5,100				

Source: Alaska Department of Labor, Research and Analysis

Note: The occupational profile of nonresidents working in construction is derived from those nonresidents who filed an unemployment claim. That profile was then applied to the total nonresident labor pool working in construction during each quarter. Approximately, 42.5 percent of all nonresidents working in construction had filed a UI claim from which to derive their occupational code.

or by using local unions, Job Service offices, local private employment agencies or universities to find workers.

Employers feel the State should promote resident hire by publicizing the issue and working actively to train and place resident workers. This process has already started in the seafood processing industry. The seafood industry is working with the Alaska Department of Labor, Employment Securities Division, through its Job Service offices to advertise and recruit Alaska residents for seafood processing jobs.

Ideas for Promoting Alaska Hire

The 1986 Alaska Hire Task Force report presented 36 approaches for promoting resident hire in Alaska. The report, a compilation of ideas from state agencies and a variety of sources outside of state government, was intended primarily for policy makers to use as a reference of new ideas and initiatives on resident hire.

The proposals described in the report are wide-ranging in nature and approach the issue of resident hire from many different directions. Some of the proposals are relatively narrow in focus, while others involve significant economic, legal, or political considerations.

Proposals include loan program incentives, expansion of job service networks, oil industry training programs, resident hire incentive programs, and expanded bidder preference. A more detailed description of these and other proposals are available upon request from the Alaska Department of Labor's research and analysis unit.

Summary

Although most Alaskans support the idea of hiring residents, there is substantial disagreement over exactly what role the State should play. Most agree that the State should actively promote the idea of resident hire and work to train and place resident workers.

The Alaska Department of Labor is now collecting data to support the legislative decision making process, and to support implementation of resident hiring preference. Other actions, such as in-state contractor bidding preferences, "Buy-Alaska" legislation, and tax or loan incentives, are more controversial. Nevertheless, the Alaska legislature is actively considering a variety of approaches.

Alaska

By Edward Eboch

Current Events

The employment statistics appear to be giving mixed signals to Alaska's economic performance. The unemployment rate is down over the year and over the month, however, the numer of people employed is also down over the year and the increase in employment was the smallest February-to-March increase in employment since 1964.

The average weekly hours worked, usually a good indicator of future trends, is down over the year for all industries except for manufacturing and retail trade. While the manufacturing industry is doing well, especially seafood processing, the same cannot be said about the retail trade sector which is experiencing year-to-year losses in employment and record bankruptcies.

Hidden Effects

Several things may be happening that cause the employment statistics to understate the severity of the current downturn. The most obvious is people leaving the state because they lost their jobs and exhausted their unemployment benefits. As people leave the state, they are no longer part of the work force and therefore, technically no longer counted as unemployed in Alaska. This can cause the labor force to fall faster than employment.

Less obvious, and more difficult to document, is the underemployment and hidden unemployment that occurs. Underemployment occurs when a person is forced to work in a job that requires less training and education than the employee has, and when people desire full time work but are employed part time. A skilled construction worker taking a job as a clerk in retail trade because he is unable to find a job in his chosen profession and no longer qualifies for unemployment benefits would be an example.

As these workers take employment usually filled by students and other part time workers not qualifying for unemployment benefits, the count of the unemployed becomes understated. To be eligible for unemployment benefits, a person must earn $1,000 a quarter, more than the earnings of many part-time workers. Students under 16 are not counted as unemployed or as part of the labor force when they are unable to find work. In addition, people become discouraged about finding work and quit looking so they are no longer counted in the

Anchorage/MatSu

By Greg Huff

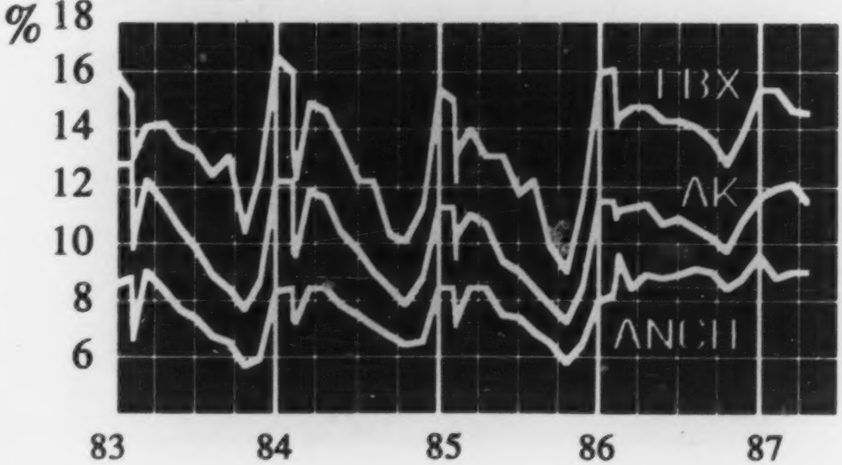
A Comparison of Employment Trends: Anchorage and Balance of State

Anchorage is Alaska's primary commerce and distribution center, as well as the federal government's stronghold and headquarters to many major corporations; other areas of the state have economies dominated by natural resource industries, state and local government, or the military.

Nearly half of all jobs in Alaska are based in Anchorage, with the other half distributed throughout the state from Ketchikan to Nome. Approximately 25% of the jobs outside Anchorage are in Fairbanks; another 25% are in Alaska's Southeast region; around 18% are in the Gulf Coast region, with the remainder in the MatSu Borough, Interior, Southwest and Northern regions.

Since January 1986, the beginning of the current economic downturn, Anchorage employment has fallen faster than employment in the remainder of the state. In April,the decline in employment over the year in Anchorage was three times that for the balance of the state. This trend has persisted for 16 months. To put it in perspective, however,

UNEMPLOYMENT RATE
not seasonally adjusted
1983 to present



Anchorage employment grew faster than the remainder of the state each year from 1980 to 1985. Figure 1 displays the employment trends by month from January 1980 to April 1987 for Anchorage and the balance of the state, while table 1 displays the annual growth rates and the number of jobs gained or lost.

Table 1
Anchorage/Balance of State
Employment Changes
1980-1986

	80-81	81-82	82-83	83-84	84-85	85-86
Anchorage:						
Percent Change	10.8%	10.6%	7.4%	6.3%	2.4%	-4.6%
Number of Jobs	8,600	9,400	7,200	6,600	2,700	-5,300
Balance of state:						
Percent Change	8.4%	5.5%	5.1%	4.4%	2.0%	-2.8%
Number of Jobs	7,600	5,400	5,300	4,700	2,300	-3,300

The seasonal patterns of employment are apparent in figure 1. Employment for both Anchorage and the balance of the state peaks in late summer or early fall and hits bottom during the late winter months. Because industry make-up in Anchorage differs considerably from the remainder of the state (as figure 2 illustrates) the fluctuations in employment are more extreme in areas outside of Anchorage. Industries with the widest employment swings are the natural resources industries and the construction industry which represent a greater percent of employment in the other areas of the state.

Although Anchorage and the balance of the state had similar levels of employment in construction the balance of the state had a high concentration of employment in the seafood industry and the pulp and lumber industries. In 1986 seafood processing employment outside of Anchorage was over seven times greater than in Anchorage, while the 2,600 jobs in lumber and paper manufacturing across the state were almost entirely outside Anchorage.

While the basic industries, with the exception of the oil industry, suffered hard times, the secondary industries were expanding as state expenditures increased and the oil industry expanded during the early 1980s. Anchorage, as the commercial center for much of the state and the Alaska headquarters for the oil industry was the main beneficiary of this growth.

Table 2
Anchorage Employment
1980-1986

	1980	1981	1982	1983	1984	1985	1986	Average Annual Change 80-85	Annual Change 85-86
Nonag. Wage & Salary	80,000	88,600	98,000	105,200	111,800	114,500	109,200	6.42%	-4.63%
Mining	2,700	3,400	3,700	3,500	3,800	4,200	3,600	5.92%	-14.29%
Construction	5,400	6,000	8,400	9,700	10,100	9,300	7,300	6.21%	-21.51%
Manufacturing	2,700	3,100	2,900	2,700	2,700	2,800	2,600	-0.75%	-7.14%
Food & Kindred Prod.	1,200	1,400	1,100	800	600	700	800	-7.79%	14.29%
Other Mfg.	1,500	1,700	1,800	1,900	2,100	2,100	1,900	4.84%	-9.52%
Trans. Comm. & Utilities	8,000	8,400	8,400	8,900	9,400	9,600	9,500	3.50%	-1.04%
Trucking & Whseing.	1,100	1,300	1,300	1,200	1,400	1,200	1,400	4.94%	16.67%
Water Transportation	300	300	300	300	400	300	300	0.00%	0.00%
Air Transportation	3,000	3,400	3,400	3,600	3,800	3,400	3,000	0.00%	-11.76%
Other Trans. Comm. & Util	3,600	3,400	3,400	3,700	3,900	4,600	4,700	5.48%	2.17%
Trade	17,000	19,700	22,900	25,500	26,900	27,300	26,300	9.12%	-3.66%
Wholesale	4,100	4,800	5,500	6,000	6,600	6,600	6,100	8.27%	-7.58%
Retail	12,900	14,900	17,400	19,400	20,400	20,700	20,200	9.38%	-2.42%
Gen. Merchandise	1,700	1,700	1,600	1,700	1,600	1,900	1,900	2.25%	0.00%
Food Stores	1,700	2,000	2,400	2,500	2,900	3,000	3,000	12.03%	0.00%
Eating & Drinking Pl.	4,600	5,500	6,700	7,600	7,900	8,100	8,000	11.70%	-1.23%
Other Retail Trade	5,000	5,800	6,800	7,700	8,000	7,800	7,200	7.57%	-7.69%
Finance-Ins. & R.E.	5,300	5,700	6,400	7,300	8,300	8,600	8,300	9.39%	-3.49%
Services & Misc.	17,000	19,300	21,400	22,900	25,200	26,300	25,100	8.10%	-4.56%
Government	22,000	23,000	23,900	24,700	25,400	26,300	26,600	3.87%	1.14%
Federal	9,500	9,600	9,800	9,900	10,200	9,900	10,200	1.43%	3.03%
State	5,000	5,500	6,100	6,500	6,600	7,300	7,300	7.86%	0.00%
Local	7,400	7,900	7,900	8,300	8,700	9,100	9,100	4.22%	0.00%

Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 4/87	R/ 3/87	4/86	P/ 4/87	R/ 3/87	4/86	P/ 4/87	R/ 3/87	4/86	P/ 4/87	R/ 3/87	4/86
Alaska Statewide	251,929	248,479	258,195	28,988	30,074	31,555	11.5	12.1	12.2	222,941	218,405	226,640
Anch.-MatSu Region	134,043	132,794	139,003	13,705	13,718	14,741	10.2	10.3	10.6	120,338	119,076	124,262
Anchorage Borough	118,283	116,990	122,489	10,622	10,649	11,300	9.0	9.1	9.2	107,661	106,341	111,189
MatSu Borough	15,760	15,804	16,514	3,083	3,069	3,441	19.6	19.4	20.8	12,677	12,735	13,073
Gulf Coast Region	26,687	26,197	26,861	3,963	4,201	4,716	14.8	16.0	17.6	22,724	21,996	22,145
Kenai Peninsula Bor	16,658	16,299	16,666	3,099	3,175	3,453	18.6	19.5	20.7	13,559	13,124	13,213
Kodiak Island Bor	5,993	5,836	6,191	330	355	673	5.5	6.1	10.9	5,663	5,481	5,518
Valdez-Cordova	4,036	4,062	4,004	534	671	590	13.2	16.5	14.7	3,502	3,391	3,414
Interior Region	38,784	37,797	39,503	5,966	5,947	6,308	15.4	15.7	16.0	32,818	31,850	33,195
Fairbanks North Star Br	33,355	32,455	34,090	4,859	4,800	5,267	14.6	14.8	15.5	28,496	27,655	28,823
Southeast Fairbanks	2,312	2,260	2,358	399	403	423	17.3	17.8	17.9	1,913	1,857	1,935
Yukon-Koyukuk	3,117	3,082	3,055	708	744	618	22.7	24.1	20.2	2,409	2,338	2,437
Northern Region	7,932	8,120	8,103	943	1,044	1,102	11.9	12.9	13.6	6,989	7,076	7,001
Nome	3,088	3,177	3,219	433	489	559	14.0	15.4	17.4	2,655	2,688	2,660
North Slope Borough	2,726	2,794	2,761	154	190	185	5.6	6.8	6.7	2,572	2,604	2,576

Southeast Region	32,714	32,395	33,393	3,220	4,018	3,522	9.8	12.4	10.5	29,494	28,377	29,871
Haines Borough	902	925	961	105	159	154	11.6	17.2	16.0	797	766	807
Juneau Borough	14,130	13,752	14,544	1,060	1,176	1,307	7.5	8.6	9.0	13,070	12,576	13,237
Ketchikan Gateway Bor	6,632	6,506	6,763	691	790	746	10.4	12.1	11.0	5,941	5,716	6,017
Pr. of Wales-Outer Ktch	2,387	2,399	2,378	374	462	339	15.7	19.3	14.3	2,013	1,937	2,039
Sitka Borough	3,840	3,735	3,867	326	354	308	8.5	9.5	8.0	3,514	3,381	3,559
Skagway-Yakutat-Angoon	1,501	1,628	1,600	239	414	322	15.9	25.4	20.1	1,262	1,214	1,278
Wrangell-Petersburg	3,322	3,450	3,280	425	663	346	12.8	19.2	10.5	2,897	2,787	2,934
Southwest Region	11,769	11,176	11,332	1,191	1,146	1,166	10.1	10.3	10.3	10,578	10,030	10,166
Aleutian Islands	2,957	2,800	2,838	132	121	123	4.5	4.3	4.3	2,825	2,679	2,715
Bethel	4,717	4,454	4,562	519	474	528	11.0	10.6	11.6	4,198	3,980	4,034
Bristol Bay Borough	449	446	439	46	64	52	10.2	14.3	11.8	403	382	387
Dillingham	2,117	2,023	2,017	246	249	219	11.6	12.3	10.9	1,871	1,774	1,798
Wade Hampton	1,529	1,453	1,476	248	238	244	16.2	16.4	16.5	1,281	1,215	1,232

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

Table 3
Balance of State
1980-1986

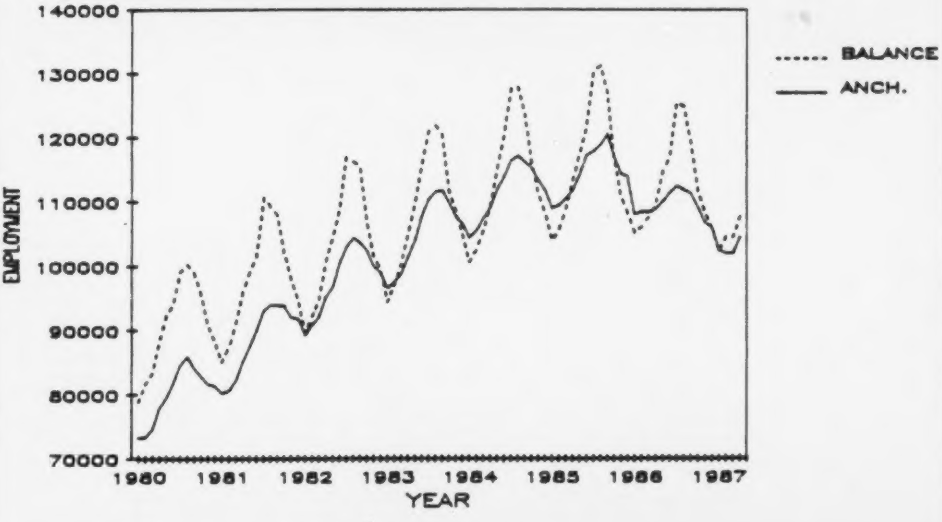
	1980	1981	1982	1983	1984	1985	1986	Average Annual Change 80-85	Annual Change 85-86
Nonag. Wage & Salary	90,900	98,500	103,900	109,200	113,900	116,200	112,900	4.43%	-2.84%
Mining	4,000	5,500	5,200	4,700	4,900	5,300	5,400	6.19%	1.89%
Construction	5,200	7,000	8,500	11,000	10,300	9,300	5,900	2.56%	-36.56%
Manufacturing	11,300	11,000	10,000	9,400	8,600	9,300	9,800	-2.81%	5.38%
Food & Kindred Prod.	6,600	6,700	5,900	5,600	5,200	5,700	5,800	-2.55%	1.75%
All Other Mfg.	1,200	1,000	1,000	1,100	1,100	1,300	1,300	1.61%	0.00%
Trans. Comm. & Utilities	9,200	9,900	10,200	9,900	9,800	9,100	8,700	-1.11%	-4.40%
Trucking & Whseing.	900	1,200	1,200	1,100	1,000	1,100	900	0.00%	-18.18%
Water Transportation	1,100	1,100	1,000	1,100	1,000	1,100	1,000	-1.89%	-9.09%
Air Transportation	2,200	2,500	2,300	2,300	2,400	2,400	2,400	1.76%	0.00%
Other Trans. Comm. & Util	4,900	5,200	5,700	5,600	5,400	4,700	4,600	-1.26%	-2.13%
Trade	12,400	13,500	14,800	15,900	17,600	18,500	18,000	7.74%	-2.70%
Wholesale	1,400	1,700	1,700	2,000	2,100	2,100	2,000	7.39%	-4.76%
Retail	10,900	11,900	13,100	14,000	15,400	16,400	16,100	8.11%	-1.83%
Gen. Mer. & Apparel	2,600	2,600	2,900	3,000	3,500	3,400	3,400	5.51%	0.00%
Food Stores	2,000	2,400	2,600	2,800	2,800	3,000	3,000	8.45%	0.00%
Eating & Drinking Pl.	3,400	3,800	4,200	4,300	4,900	5,300	5,400	9.69%	1.89%
Other Retail Trade	2,800	3,100	3,300	3,800	4,200	4,500	4,400	9.46%	-2.22%
Finance-Ins. & R.E.	2,800	3,100	3,500	3,400	3,900	4,200	4,400	9.46%	4.76%
Services & Misc.	13,200	14,200	15,600	16,800	17,800	18,500	19,100	7.67%	3.24%
Government	32,800	34,200	36,100	38,100	41,100	42,000	41,600	4.87%	-0.95%
Federal	8,200	7,900	7,900	7,800	7,900	7,700	7,900	-0.74%	2.60%
State	10,400	11,100	11,900	12,400	12,700	13,200	12,900	4.40%	-2.27%
Local	14,200	15,200	16,500	17,900	20,400	21,200	20,800	7.93%	-1.89%

Industries such as trade; services; and finance, insurance, and real estate represent over 54% of the jobs in Anchorage compared to 37% of the jobs elsewhere in Alaska. These industries provided the bulk of the new jobs from 1980 to 1985, but they have been hit hard in the current economic downturn. The seafood and pulp and lumber industries have been growing the past two years. This resulted in a less severe economic downturn in the balance of the state than what has occurred in Anchorage since early 1986.

Construction employment declined throughout the state in 1986, but the decline was more intense for the balance of the state than in Anchorage. Furthermore, the decline in construction took place one year later in Anchorage than the balance of state. Construction employment in the balance of state declined 6% in 1984 after growing over 25% annually through 1983. Anchorage construction employment began to decline in 1985, with a drop of 8%.

Another fundamental difference between Anchorage and the balance of the state is the proportion of government employment. Government employment makes up a smaller share of Anchorage's total employment than in the balance of state, 24% compared to 37%; however, the federal government has 10,200 civilian employees in Anchorage compared to 7,900 elsewhere in the state, and civilian federal government employment levels in Anchorage have increased over time while declining in some other areas of the state. In addition to civilian federal employment, Anchorage is base to around half of all uniformed

Figure I
Anchorage/Balance of State Employment
January 1980 to April 1987



Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/	r/		Changes From:	
	4/87	**3/87**	**4/86**	**3/87**	**4/86**
Nonag. Wage & Salary	102,650	101,800	108,800	850	-6,150
Mining	3,300	3,350	3,800	-50	-500
Construction	5,800	5,500	6,500	300	-700
Manufacturing	2,350	2,100	2,400	250	-50
Food & Kindred Prod.	550	350	600	200	-50
Other Mfg.	1,800	1,750	1,800	50	0
Trans. Comm. & Utilities	8,950	8,800	9,250	150	-300
Trucking & Whseing.	1,350	1,250	1,450	100	-100
Water Transportation	250	250	300	0	-50
Air Transportation	2,950	2,950	2,900	0	50
Other Trans. Comm. & Utilities	4,400	4,350	4,600	50	-200
Trade	24,300	24,150	26,150	150	-1,850
Wholesale	5,500	5,400	6,250	100	-750
Retail	18,800	18,750	19,900	50	-1,100
Gen. Merchandise	1,750	1,800	1,800	-50	-50
Food Stores	2,950	2,950	2,900	0	50
Eating & Drinking Pl.	7,550	7,650	8,050	-100	-500
Other Retail Trade	6,550	6,350	7,150	200	-600
Finance-Ins. & R.E.	7,850	7,850	8,400	0	-550
Services & Misc.	23,750	23800	25,050	-50	-1,300
Government	26,350	26,250	27,250	100	-900
Federal	10,300	10,250	10,000	50	300
State	7,150	7,100	7,700	50	-550
Local	8,900	8,900	9,550	0	-650

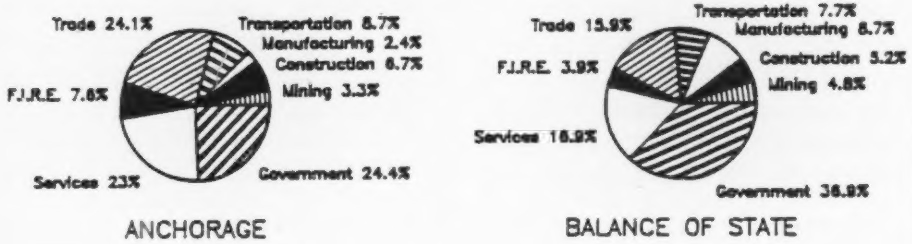
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/	r/		Changes From:	
	4/87	**3/87**	**4/86**	**3/87**	**4/86**
Nonag. Wage & Salary	109,150	108,450	115,450	700	-6,300
Mining	3,300	3,350	3,800	-50	-500
Construction	6,100	5,700	6,850	400	-750
Manufacturing	2,400	2,200	2,450	200	-50
Trans. Comm. & Utilities	9,650	9,500	9,900	150	-250
Trade	25,850	25,750	27,600	100	-1,750
Finance-Ins. & R.E.	8,350	8,350	8,950	0	-600
Services & Misc.	24,800	24,900	26,200	-100	-1,400
Government	28,700	28,700	29,700	0	-1,00

personnel and their dependents located in Alaska, which totals some 23,000 uniformed personnel and 30,000 dependents statewide.

In terms of state government employment, the balance of state had 1.8 times more state government employment than Anchorage and 2.3 times more local government in 1986. State government employment grew faster in Anchorage than in the rest of the state during this time largely due to the railroad transfer from federal to state ownership, while the local governments around the state tended to grow faster than Anchorage local government employment.

Figure II
Anchorage/Balance of State Employment
Percent Distribution by Industry 1986



Fairbanks/Interior

By Neal Fried

Fairbanks' Construction Industry

During the first half of this decade construction employment in Fairbanks doubled, making it the fastest growing sector in the area's economy; however, in 1986 the construction industry literally went bust. Employment fell by 46% in one year in Fairbanks as 1,400 jobs were lost. The construction industry was responsible for 68% percent of all the jobs lost in Fairbanks in 1986.

In 1987 there is the promise of military related construction projects in Fairbanks, representing most of the "big" projects in the state. Because the outlook in so much of the remainder of the state is grim, many of the state's contractors and construction workers are now focusing on Fairbanks. How important has this industry been to Fairbanks' economy and has its role changed over the past twenty years?

A Historical Perspective

Over the past twenty years, the industry has employed 11.1% of the Fairbanks' work force. In 1966 the construction industry employed 10.1% of Fairbanks' wage and salary work force and contributed 17.1% of the Fairbanks' payroll. Today it employs only 6.1% of the work force and makes up only 8% of the payroll—the smallest percent during the 1966 to 1986 period. But averages are almost meaningless when discussing construction because it is such a cyclical industry (see figure 1).

From 1966 to 1973 construction's share of the work force was relatively stable, ranging from 7.0%-10.1% (see table 1). Employment in Fairbanks' economy grew steadily during this period. Then construction of the oil pipeline led the Fairbanks economy into its most rapid expansion in its history. In 1974 construction employment more than doubled and doubled again in 1975, reaching a peak of 6,461 jobs. At its pinnacle, the industry employed 22.5% of the work force and contributed 40.2% of the payroll; a level unlikely to be reached again.

Employment in this industry began to fall in 1976, with the largest decline from 1977 to 1978 with the completion of the construction of the oil pipeline. Construction employment fell for five straight years, bottoming out at a low of 1,580 jobs, or 7.5% of the work force, in 1980. Nineteen eighty-one marked the beginning of a comeback of this industry and it helped lead Fairbanks into a period of rapid expansion.

Table 1
Fairbanks Nonagricultural Employment
1966-1986*

Year	Construction Employment	Total Employment	Percent Share Construction
1966	1,183	11,736	10.1
1967	958	11,892	8.1
1968	869	12,394	7.0
1969	1,216	13,878	8.8
1970	1,255	14,451	8.7
1971	1,205	14,655	8.2
1972	1,166	15,583	7.5
1973	1,175	15,479	7.6
1974	3,146	19,750	15.9
1975	6,461	28,654	22.5
1976	5,619	27,590	20.4
1977	4,312	24,238	17.8
1978	1,960	21,613	9.1
1979	1,631	21,113	7.7
1980	1,580	20,933	7.5
1981	1,834	22,854	8.0
1982	2,186	24,806	8.8
1983	2,562	26,034	9.8
1984	2,875	27,663	10.4
1985	3,106	28,903	10.7
1986	1,679	27,513	6.1

*1986 is based on a 9-month average.

Oil revenues provided funds for the largest capital construction investment ever undertaken by the state and Alaska's local governments. Additional funds were provided via low interest loans for residential housing which sparked a housing boom. Commercial construction also boomed. Construction employment grew by double digit levels from 1981-1984 and grew another respectable 8% in 1985. Construction's share of the Fairbanks work force during this period ranged from 8.0%-10.7%, not much different than the historic percent of the workforce.

The approximate $100 million in military construction this year will not return Fairbanks to the level of the oil revenue era but it could pull construction employment in Fairbanks to above 1986 levels. Although there is an excess of housing and commercial space, the growing number of soldiers could provide some stimulus to the residential construction sector. This is in stark contrast to the situation in much of the remainder of the state construction employment will continue to decline in 1987.

Construction's Wages and Payroll

Construction's contribution to Fairbanks' payroll is significantly larger than its employment—ranging from 8.5%-40.2%. The payroll is larger because the construction industry pays the highest wages in Fairbanks. These high wages have made working in the construction industry attractive. Though a cyclical and seasonal industry, construction has seldom had a problem attracting an adequate supply of labor. The higher wages have meant that changes in construction employment has a greater impact on the economy.

In 1985 the average monthly wage was $2,481 compared to construction's average monthly wage of $3,869 (average monthly wages have been adjusted to 1986 dollars). Construction's average monthly wage has fluctuated over the years. It peaked in 1974 at $8,071—a reflection of the legendary wages paid on the oil pipeline project. The average wage then fell during the next seven years (See figure 2). In 1982 it began to perk up again, but then it began to fall in 1984 and reached an all time 20-year low of $3,184 in 1986.

Construction's average monthly wage took a dramatic turn for the worse because the industry in 1986 was floundering. The number of hours worked by the construction workers that were lucky enough to find work were cut back. There has also been a trend during the last two to three years to cut back on the hourly wage rate in a variety of the construction trades. This may have also contributed to some of the recent decline.

Figure I
Fairbanks Construction Employment
1966 – 1986

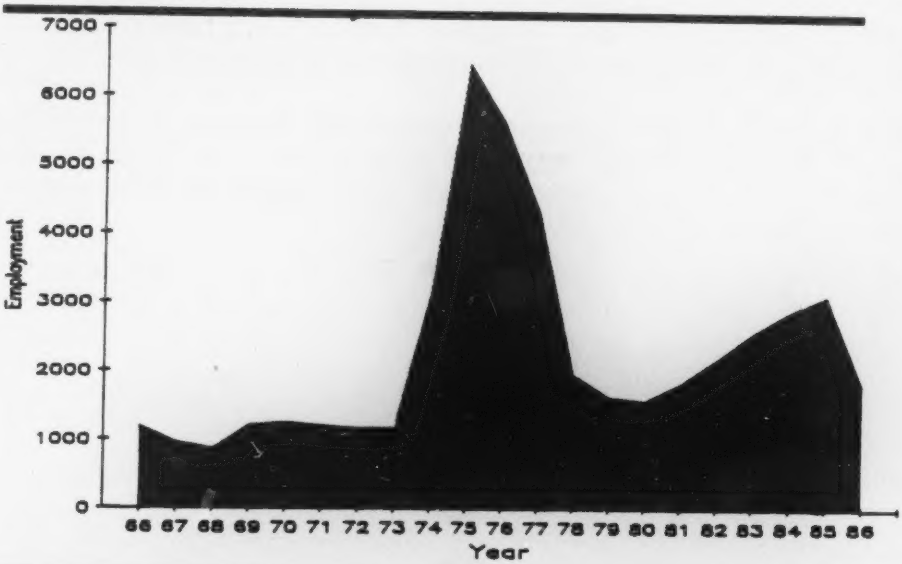
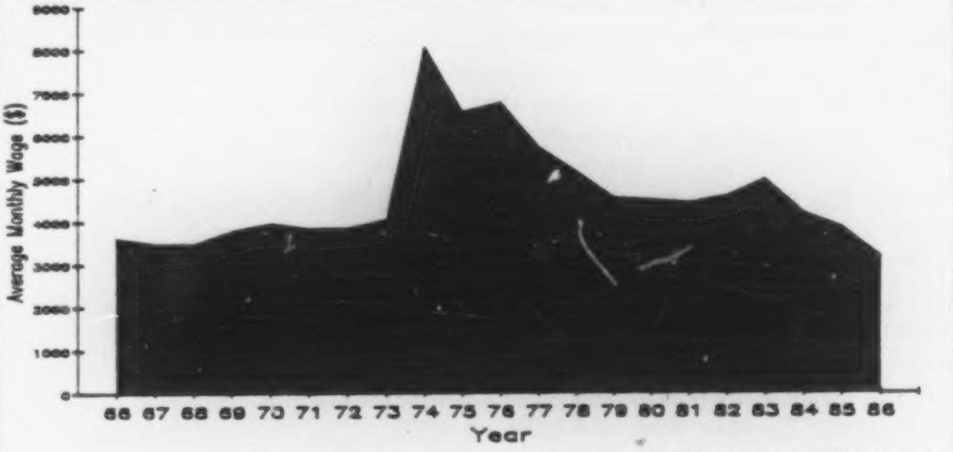


Figure II

Average Monthly Wage Fairbanks Construction 1966–1986*



*Adjusted to 1986 dollars

Construction Employees—A Fairbanks Export

Fairbanks' construction industry "exports" its contractors and workers to work in the northern and interior parts of the state. Though these figures are not always captured in the Fairbanks statistics, the income returned to the Fairbanks economy via wages and profits certainly stimulates the local economy.

Construction is the most seasonal industry in Fairbanks and therefore contributes to a higher unemployment rate because so many construction workers are employed only during part of the year. For example in 1986 constructions employment went from a low of 1,100 in February and March to a peak of 2,300 in August and September.

During periods of strong economic expansion, the construction industry flourishes and during economic contraction, it usually is the first and hardest hit. This year construction could help lead the Fairbanks economy out of its present slump.

Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

		p/	r/	Changes From:	
	4/87	**3/87**	**4/86**	**3/87**	**4/86**
Nonag. Wage & Salary	25,900	25,450	27,050	450	-1,150
Mining	100	100	100	0	0
Construction	1,100	1,000	1,150	100	-50
Manufacturing	600	550	550	50	50
Trans. Comm. & Utilities	2,500	2,500	2,550	0	-50
Trucking & Whseing.	350	350	400	0	-50
Air Transportation	950	900	900	50	50
Other Trans. Comm. & Utilities	1,200	1,250	1,250	-50	-50
Trade	5,350	5,200	5,700	150	- 350
Wholesale	850	850	900	0	-50
Retail	4,500	4,350	4,800	150	- 300
Gen. Mer. & Apparel	500	500	500	0	0
Food Stores	750	750	750	0	0
Other Retail Trade	3,250	3,100	3,550	150	- 300
Finance-Ins. & R.E.	1,000	1,000	1,100	0	- 100
Services & Misc.	5,650	5,600	5,850	50	- 200
Government	9,600	9,500	10,050	100	- 450
Federal	2,950	2,900	2,900	50	50
State	3,950	3,950	4,250	0	- 300
Local	2,700	2,650	2,900	50	- 200

Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/	r/		Changes From:	
	4/87	**3/87**	**4/86**	**3/87**	**4/86**
Nonag. Wage & Salary	29,850	29,050	31,050	800	-1,200
Mining	200	200	200	0	0
Construction	1,150	1,050	1,200	100	-50
Manufacturing	600	550	550	50	50
Trans. Comm. & Utilities	2,850	2,800	2,850	50	0
Trade	5,650	5,450	6,050	200	- 400
Finance-Ins. & R.E.	1,100	1,100	1,150	0	-50
Services & Misc.	6,200	5,950	6,400	250	- 200
Government	12,100	11,950	12,650	150	- 550

Current Trends

Fairbanks' April unemployment rate of 14.6% inched down for the second straight month this year and continues to be below year-ago levels. The Yukon-Koyukuk's April rate of 22.7% has the distinction of being the highest rate in the state. The Yukon-Koyukuk unemployment rate has traditionally been high because of the seasonal nature of its economy and the scarcity of employment opportunities. This latest downturn in the economy has simply exacerbated an already substandard labor market.

Gulf Coast

By Neal Fried

The Kenai Peninsula Borough

Employment growth on the Kenai Peninsula during the oil revenue boom was impressive but the rise in the payroll was even more spectacular. From 1980 to 1985 employment grew by 46% while the area's total payroll increased by 68%. In dollars this increase represented a $139 million added to the area's payroll which peaked at $343 million in 1985. In 1986 the economic picture reversed itself as employment fell by 4.9% and total earnings fell 7.5%.

Earnings on the Peninsula fell faster than employment because a disproportionate number of higher paying jobs were lost. The construction industry led the drop in employment and earnings. In 1986 total construction employment fell 38% and earnings fell 48%. For every construction job lost on the Peninsula, approximately $35,772 in annual earnings were lost to the area's economy. This compares to $26,940 per job for the area as a whole.

In addition to the loss in construction employment, hours worked per worker also fell. Overtime is less common on today's construction site. Competition for construction projects is keen and many contractors are reducing costs by not paying overtime. Labor is also plentiful so that additional workers can be used instead of working employees longer hours.

Transportation, communication and utilities was the other industry which contributed to the disproportionate loss in earnings. The transportation industry losses were similar to construction's and came largely as a direct result of the decline in the construction industry. Transportation's earnings are above average, therefore when jobs were lost in this industry, there was a greater loss in earnings to the economy.

Although construction's and transportation's losses will be smaller in 1987, earnings will probably still fall faster than employment. The losses in 1987 will not be just concentrated in one or two industries but will be broad based. For example, the oil industry's employment which grew in 1986, will register losses in 1987. This is significant because the oil industry's compensation is the highest on the Peninsula's economy—70% above the average. State government which also has above-average compensation, will also suffer larger employment losses in 1987.

Table 1
Kenai Peninsula Borough
Nonagricultural Employment and Payroll

	First Nine Months 1985 Employment	1986 Employment	Percent Change	First Nine Months 1985 Payroll	1986 Payroll	Percent Change
Total	12,285	11,690	-4.8	255,399,399	236,203,366	-7.5
Mining	792	958	21.0	27,960,513	33,285,915	19.0
Construction	1,391	865	-37.8	44,243,056	23,203,195	-47.6
Manufacturing	1,594	1,487	-6.7	31,542,949	30,223,363	-4.2
Trans.Comm.& Util	945	730	-22.7	28,028,093	19,793,080	-29.4
Trade	2,472	2,336	-5.5	30,392,479	28,363,804	-6.7
Wholesale	391	393	0.6	8,203,639	7,641,046	-6.9
Retail	2,081	1,943	-6.6	22,188,840	20,722,758	-6.6
Finance-Ins.& R.E	372	388	4.5	5,309,700	5,439,914	2.5
Services	1,789	1,902	6.3	22,519,887	23,097,159	2.6
Miscellaneous	42	82	95.2	618,046	1,681,417	172.1
Government	2,823	2,864	1.5	63,402,028	69,421,802	9.5
Federal	210	228	8.6	4,591,043	5,146,928	12.1
State	835	833	-0.2	21,350,804	22,140,945	3.7
Local	1,778	1,803	1.4	37,460,181	42,133,929	12.5

Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/	r/		Changes From:	
	4/87	**3/87**	**4/86**	**3/87**	**4/86**
Nonag. Wage & Salary	18,850	18,200	18,700	650	150
Mining	850	850	950	0	- 100
Construction	900	800	950	100	-50
Manufacturing	2,950	2,600	2,550	350	400
Food & Kindred Prod.	2,350	2,000	1,950	350	400
All Other Mfg.	600	600	600	0	0
Trans. Comm. & Utilities	1,400	1,400	1,350	0	50
Trade	3,250	3,100	3,300	150	-50
Wholesale	500	450	500	50	0
Retail	2,750	2,650	2,800	100	-50
Finance-Ins. & R.E.	650	650	700	0	-50
Services & Misc.	3,350	3,200	3,250	150	100
Government	5,500	5,600	5,650	- 100	- 150
Federal	650	600	550	50	100
State	1,500	1,450	1,650	50	- 150
Local	3,350	3,550	3,450	- 200	- 100

Earnings grew faster during the Kenai Peninsula's boom years, so it is not surprising that they are falling faster during the present economic contraction. A loss in earnings greater than the loss unemployment is an additional difficulty the economy must weather during the present recession.

Current Trends

The unemployment rates in all of the census areas in the Gulf Coast Region declined in April. Employment is on the seasonal mend and some unemployed are returning to work. Kodiak's unemployment rate is the lowest in the region and the second lowest in the state. The Gulf Coast Region is one of the few areas of the state that had an increase in its April employment and work force above the previous April.

Southeast Alaska

By John Boucher

Nonresident Employment in Southeast Alaska

In last month's *Trends*, nonresident employment in Alaska was discussed in the feature article. This article will examine nonresident employment data for Southeast Alaska in greater detail.

As a region, Southeast Alaska was close to the statewide average in terms of wages paid to nonresidents, but the number of nonresident workers employed was much higher than the statewide average. Statewide 12% of wages were paid to nonresidents compared to 13% in the Southeast region. On the other hand, the statewide average for nonresident employment was 23% of total employment while Southeast Alaska had 29% nonresident employment.

The Southeast region appears average in terms of wages paid to nonresidents, but census areas in Southeast Alaska tend to have either a low percentage of total wages paid to nonresidents or a relatively high percentage of wages paid to nonresidents (see table 1) There are no "average" census areas in Southeast Alaska. The three urban census areas, Juneau, Ketchikan and Sitka average about 10% wages paid to nonresidents while the four rural census areas have at least 18% of wages paid to nonresidents and two of these four census areas have more than 25% of total wages paid to nonresidents.

The urban/rural dichotomy in terms of resident and nonresident employment is not surprising when industry data is examined (table 2). In Southeast Alaska there are two dominant industries—manufacturing and government. The census areas which derive the most employment and wages from the manufacturing sector tend to have the highest percent of nonresident employment and wages. Government centers, which are also the urban areas of the region, have more resident employment and wages.

Communities with heavy manufacturing employment are not totally dominated by nonresident employment and wages. Ketchikan and Sitka are both manufacturing centers in the region and yet they have low nonresident employment and wages. Ketchikan and Sitka are manufacturing processing areas as well as harvesting areas. Two segments of the manufacturing industry tend to be dominated by nonresident employment—logging and seafood processing. On the other hand, timber processing employment such as pulp mill and sawmill employment tend to be resident employment.

Table 1
Southeast Alaska
Resident and Nonresident Wages and Employment by Census Area 1985

	Wages (Millions$)			Employment		
	Resident	Nonresident	Percent Nonresident	Resident	Nonresident	Percent Nonresident
Southeast Region	412.6	62.1	13.1	24,988	10,396	29.4
Haines Borough	13.3	2.9	17.9	827	393	32.2
Juneau Borough	150.4	15.4	9.3	8,666	3,434	28.4
Ketchikan Gateway Boro.	110.2	13.0	10.6	6,024	1,721	22.2
Prince of Wales-Outer Ketchikan	26.4	5.7	17.9	1,920	842	30.5
Sitka Borough	55.6	5.2	8.5	3,299	796	19.4
Skagway-Yakutat-Angoon	17.7	6.7	27.6	1,439	1,104	43.4
Wrangell-Petersburg	39.1	13.0	25.0	2,823	2,106	22.2

The processing end of the wood products industry offers residents more stable, year round employment opportunities than either the logging or seafood processing industry. Both the logging and, in particular, the seafood processing industry have seasonal employment patterns that do not lend themselves to year round employment; therefore the census areas, primarily Ketchikan and Sitka, that have little or no timber processing employment tend to have the highest nonresident employment and wages.

Following the manufacturing industry, the construction industry pays the next highest total wages to nonresidents in the region. Juneau and Ketchikan were the largest contributors to total nonresident construction wages, and this is not surprising given that they are the two largest population centers. The Wrangell-Petersburg census area was a surprising third highest, in terms of construction wages paid, with 2.2 million or 29% of construction wages being paid to nonresidents. The inordinate amount of building that was taking place in Wrangell and Petersburg in 1985 probably required more labor than the local markets could provide. Several large projects were under construction, most notable was the Wrangell High School.

Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

				Changes From:	
	p/ 4/87	**r/ 3/87**	**4/86**	**3/87**	**4/86**
Nonag. Wage & Salary	27,700	26,550	28,700	1,150	-1,000
Construction	900	800	1,000	100	- 100
Manufacturing	3,600	2,950	3,500	650	100
Food & Kindred Prod.	800	450	800	350	0
Lumber & Paper Prod.	2,600	2,300	2,500	300	100
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	2,000	1,900	2,050	100	-50
Trade	4,150	4,050	4,300	100	- 150
Wholesale	350	350	350	0	0
Retail	3,800	3,700	3,950	100	- 150
Finance-Ins. & R.E.	1,100	1,100	1,150	0	-50
Mining, Services & Misc.	4,350	4,250	4,400	100	-50
Government	11,600	11,500	12,300	100	- 700
Federal	2,000	2,000	2,000	0	0
State	5,200	5,150	5,650	50	- 450
Local	4,400	4,350	4,650	50	- 250

Table 2
Southeast Alaska
Resident and Nonresident Wages and Employment by Industry 1985

	Wages (Millions$)			Employment		
	Resident	Nonresident	Percent Nonresident	Resident	Nonresident	Percent Nonresident
Agriculture 1/	4.3	1.1	20.5	281	150	34.8
Mining	1.2	.4	23.6	48	26	35.1
Construction	47.1	10.8	18.7	2,292	1,012	30.6
Manufacturing	78.2	27.8	18.7	4,393	3,951	47.4
Transportation	39.3	4.7	10.6	2,025	491	19.5
Wholesale Trade	7.2	.7	8.9	340	79	18.9
Retail Trade	45.3	4.5	9.0	4,683	2,482	34.6
Finance-Ins. & Real Estate	21.0	1.4	6.4	1,258	233	15.5
Services	59.4	5.7	8.7	4,338	1,221	22.0
Nonclassifiable 2/	.5	.1	18.7	82	33	28.7
Total Private Business	303.4	57.1	15.8	19,740	9,678	32.9
Local Government	109.3	5.0	4.4	5,258	718	12.0
Total Business & Local Govt	412.7	62.1	13.1	24,998	10,396	29.4

1/ Data include only nonagricultural wage and salary employees covered by unemployment insurance. Consequently, data provided for this industry may not be representative of the industry as a whole.

2/ Not classified in any other industry.

Current Trends

Southeast Alaska wage and salary employment experienced some rather robust employment growth in the month of April, gaining 1,150 jobs over the month. The increase of 4.4% was the largest of any region in the state. Most of the employment gains were made in the manufacturing industry, in particular lumber and paper products and seafood processing. Other industries that figured in the employment gain included government, construction trade, and services.

In addition, the Southeast region's unemployment rate posted a dramatic improvement over the month, dropping to 9.8% after being 12.4% in March. Skagway-Yakutat-Angoon improved almost ten percentage points, dropping from 25.4% to 15.9%. Wrangell-Petersburg also fell,going from 19.2% in March to 12.8% in April.

Hours and Earnings

By John Boucher

Longer Hours Drive up April Weekly Paychecks

Industry wages increased across the board in April as Alaska's economy began to come out of its winter doldrums. Average weekly hours held steady from March levels but increasing average weekly hours helped to drive up the average weekly paychecks.

Most of the changes in weekly hours were small except for manufacturing and construction. The manufacturing industry increased weekly hours due to the wood products sector. Logging camps and wood processing facilities increased hours as the summer harvesting of Southeast Alaska's forests got underway. Warmer weather throughout the state was the reason for increasing construction hours in April, as activities which occur only when the weather is above freezing began to take place.

Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 4/87	R/ 3/87	4/86	P/ 4/87	R/ 3/87	4/86	P/ 4/87	R/ 3/87	4/86
Mining	1,171.86	1,141.43	1,189.65	49.3	48.8	51.5	23.77	23.39	23.10
Construction	1,016.44	915.80	1,035.50	42.6	39.8	43.6	23.86	23.01	23.75
Manufacturing	538.80	485.35	499.78	44.9	42.8	41.1	12.00	11.34	12.16
Food & Kindred Prod	400.33	334.88	300.27	45.7	46.0	38.3	8.76	7.28	7.84
Lumber & Paper Prod	741.66	622.08	727.17	47.3	41.5	49.1	15.68	14.99	14.81
Trans., Comm. & Utilities	541.62	513.92	561.74	35.4	33.9	36.5	15.30	15.16	15.39
Trade	393.82	367.16	383.79	35.1	32.9	33.0	11.22	11.16	11.63
Wholesale	547.22	506.27	517.45	38.7	36.9	37.2	14.14	13.72	13.91
Retail	341.37	318.78	333.47	33.9	31.5	31.4	10.07	10.12	10.62
Finance-Ins. & R.E	395.57	387.60	379.29	32.8	32.3	33.3	12.06	12.00	11.39

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

ALASKA ECONOMIC
TRENDS

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3/27/87

Prospects for Aquaculture Diversification in Alaska

Employment in Alaska's Seafood Industry

Alaska's Employment Scene

Working in the Fishing Industry

Alaska's Largest Employers

Alaska Economic Trends

Steve Cowper, Governor, State of Alaska

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We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact Dr. Edward W. Eboch, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.

Alaska's Largest Employers

By Neal Fried, Greg Huff and Judy Hallanger

For the first time the Alaska Department of Labor has produced a current list of Alaska's top 50 private employers (Table 1) based on the number of workers each company employs in Alaska./1 Several of Alaska's top 50 employers are members of the Fortune 500. The others, if not of national or international stature, are regionally recognized and are major players in Alaska's economy.

While most of the companies listed are familiar, there may be a few companies which may not be easily recognized. For example, fifth ranked Lutheran Hospital & Homes of America may not be familiar because they are better known by their individual operations, such as Fairbanks Memorial Hospital. This, and other events, such as a company changing its names since 1985, are footnoted at the end of Table 1. These footnotes provide the best information available.

Two rankings are provided; one based on the company's average annual employment in 1985 (the last calender year for which data is available) and their July 1985 through June 1986 employment. In some cases the rankings have changed.

Alaska's top 50 represent 20% of all private jobs in Alaska.

Also provided is the major industry category and the location of each company. Two locations for each company are presented in Table 1. The first location covers the area where that company operates in Alaska, but if it operates in more than one community, as is the case with most of the firms, then a statewide designation is given. The second location gives the company's Alaska headquarters or the location of the largest operation.

Firm Size

Alaska's top 50 represent only a small percentage of private business firms operating in Alaska (less than ½ of 1%), but their employment represents nearly 20% of all private jobs in Alaska and an even greater portion of wages and salaries. While the top 50 only represent a small number of firms they are a major force in the Alaskan economy.

In 1985, Alaska's 50 largest private employers ranged in size, as measured by employment, from 308 to 2,835 employees. They were involved in a variety of activities: from oil and gas production to private social services. In total they employed an annual average 31,217 people in 1985.

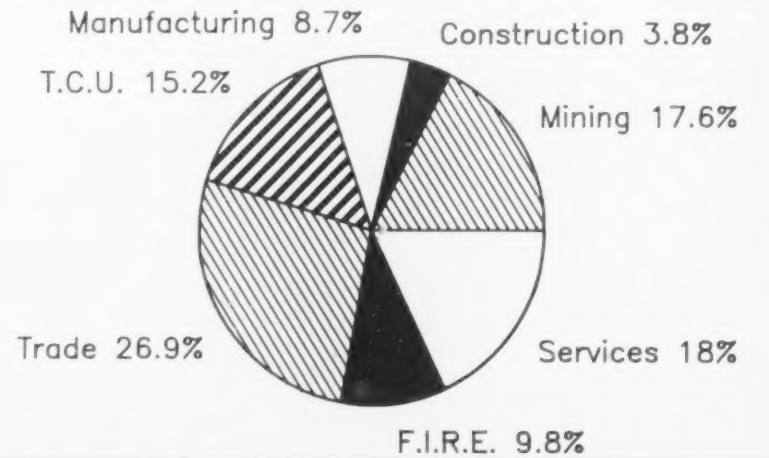


Figure 1
Top 50 Firms in Alaska
Employment by Industry

1/ The employment data is based on records of unemployment insurance contributions reports. The data is based on U.I account numbers, so the employment figures may not include the total employment of a parent company if the subsidiaries are under another account number. The employment information is protected by confidentiality laws and therefore it was necessary to receive written permission from each company to release the information before it could be published. All of the companies were very cooperative in this effort.

19% of total private sector employment and 13.5% of total employment.

Alaska's top 50 paid $1.06 billion in wages in 1985, 24% of all wages paid by private employers in the state. The top 50 firms tend to pay higher average wages and salaries than for all firms in Alaska. The average monthly pay in 1985 for employees working for Alaska's top 50 employers was $2,793 compared to the average private sector monthly pay of $2,369.

Because the top 50 employers are larger than the average company they tend to be able to weather economic downturns better. From the second quarter of 1985 to the second quarter of 1986 employment among the top 50 declined 2.5% compared to a 5.2% decline among the total private sector.

When examining the ranking of the top 50 Alaska firms in Table 1, the annual average data obscures the seasonal fluctuations in employment for some industries. If the ranking was based on a single month or quarter the seasonal fluctuations would result in shifts in the ranking during the course of a year. The primary examples are the seafood processing and construction industries. During the summer, seafood processing employment levels peak and the ranking of the processors climbs but their ranking falls just as quickly when the peak season ends. The construction industry generally follows a similar pattern of extreme fluctuations in employment levels.

Industry Breakout

Not only do the top 50 represent a considerable portion of jobs in Alaska they represent a significant share of employment in their specific industries. Of the 31,200 jobs among the top 50 employers in 1985, the trade industry had the greatest number of jobs and construction the fewest. Trade also had the most firms in the top 50. These fifteen firms represented nearly a quarter of the top 50's employment in 1985, while the three construction firms within the top 50 made-up less than 4% of the 31,200 jobs (Figure 1).

The four oil and gas firms in the top 50 in 1985 represented nearly 60% of total mining employment in Alaska. ARCO and SOHIO, the two largest oil companies, accounted for 44% of total statewide mining employment. The construction industry, on the other hand, was composed more than any other industry of small firms. Only 6% of total construction employment is within the top 50 employers list.

Although the members of the top 50 within the trade industry represented 18% of total trade employment, some members comprised a greater share of their specific retail business. For example, the largest two firms in the trade industry are Alaska's largest grocers, Carr's and Safeway, which represent 45% of total employment in Alaska's food store industry. The four merchants within the department store sector (Fred Meyer, Sears, J C Penney and Nordstroms) had employment levels in 1985 that accounted for nearly 85% of statewide employment levels within their industry.

The largest of the services firms: Providence Hospital, Lutheran Hospital and Homes of America, and Humana Hospital, accounted for over three quarters of private hospital and nursing and personal care employment in Alaska.

Several firms dominate their industries. Alyeska Pipeline Company represents 90% of oil pipeline employment in Alaska, while Alascom, the big player in the telephone communication industry, represents nearly 60% of that industry's total employment. (This does not include local government owned and operated systems.) Four of the eight firms in the transportation, communication, and utilities industry are air transportation firms which accounted for 34% of all air transportation employment in Alaska. The four banks among the top 50 represent 64% of banking employment statewide, while the single credit union represented 1/3 of total credit union employment statewide.

Location of the Top 50

The top 50 firms can be found throughout Alaska, from Ketchikan to the North Slope, from Cordova to Adak. In 1985 the top 50 had employees in at least 57 communities across Alaska, although they tend to be concentrated in Anchorage. As an industry group the financial institutions are most widely distributed among the top 50. On average, they had employees in 13 communities with one firm located in 22 communities.

In the trade industry, Sears and Spenard Builders Supply had operations in more communities than any other retail establishment. Carr's and Safeway were distributed in the six largest communities in the Southcentral part of the state, but along with Spenard Builders they have several locations in Anchorage.

Because of the scope of their services Alascom, MarkAir, and Alaska Airlines are well represented across the state, each having employees in at least 15 communities. The Salvation Army was in 13 communities. The only hotel operator in Alaska among the top 50 with locations in more than one community was Sheffield Enterprises.

Unique among the top 50 are the oil companies with operations on the North Slope and in Cook Inlet, but as is common with most top 50 firms they have an Anchorage headquarters. The construction firms are much the same as the oil firms. They are headquartered in Anchorage, but their main operations are related to oil field construction on the North Slope.

The manufacturing firms that are connected to fish processing and lumber and paper manufacturing, among the top 50, are the firms most likely to be based outside Anchorage and still have multiple locations. On the other hand, Alaska's two largest newspapers are Anchorage based, but distributed statewide.

Conclusion

Alaska's 50 largest employers accounted for over 31,000 jobs (20% of total private employment) and $1.06 billion in wages (24% of private wages) in Alaska. They represent a variety of industries and tend to have Anchorage headquarters with operations around the state. These firms were major contributors to economic growth and expansion in the past and will continue to play a leadership role in Alaska's future.

Table 1
Alaska's Top 50 Firms
(based on 1985 average employment)

Firm Name	1985 Rank	June 86 Rank	1985 Employment	Industry	Area	Headquarters or Largest Site
ARCO Alaska, Inc. 1/	1	1	2,835	Mining	Statewide	Anchorage
Carrs Quality Centers, Inc.	2	2	1,894	Retail Trade	Statewide	Anchorage
Providence Hospital	3	3	1,627	Services	Anchorage	Anchorage
SOHIO Alaska Petroleum Co. 2/	4	4	1,348	Mining	Statewide	Anchorage
Lutheran Hospital & Homes of America 3/	5	5	1,066	Services	Statewide	Fairbanks
Alascom, Inc.	6	6	1,028	Trans. Communication & Utilities	Statewide	Anchorage
National Bank of Alaska	7	7	942	Finance, Insurance & Real Estate	Statewide	Anchorage
Alyeska Pipeline Service Co., Inc.	8	10	907	Trans. Communication & Utilities	Statewide	Anchorage
Safeway Stores, Inc.	9	8	845	Retail Trade	Statewide	Anchorage
1st National Bank of Anchorage	10	11	803	Finance, Insurance & Real Estate	Statewide	Anchorage
VECO, Inc.	11	9	771	Mining	Statewide	Anchorage
Alaska Airlines, Inc.	12	12	768	Trans. Communication & Utilities	Statewide	Anchorage
McDonalds 4/	13	13	679	Retail Trade	Statewide	Anchorage
Humana Hospital Alaska, Inc.	14	14	665	Services	Anchorage	Anchorage
Alaska USA Federal Credit Union	15	15	631	Finance, Insurance & Real Estate	Statewide	Anchorage
Icicle Seafoods, Inc.	16	17	630	Manufacturing	Statewide	Petersburg
MarkAir	17	16	619	Trans. Communication & Utilities	Statewide	Anchorage
Union Oil Co. of California	18	20	547	Mining	Statewide	Anchorage
Fred Meyer Shopping Centers	19	19	524	Retail Trade	Statewide	Anchorage
Spenard Builders Supply, Inc.	20	22	511	Retail Trade	Statewide	Anchorage
Sears Roebuck and Co.	21	21	509	Retail Trade	Statewide	Anchorage
Ketchikan Pulp Co.	22	18	494	Manufacturing	Statewide	Ketchikan
Captain Cook Hotel	23	24	459	Services	Anchorage	Anchorage
J C Penney Co.	24	26	454	Retail Trade	Statewide	Anchorage
Nordstrom, Inc.	25	23	449	Retail Trade	Statewide	Anchorage
Anchorage Daily News, Inc.	26	25	439	Manufacturing	Anchorage	Anchorage
Pioneer Construction Co.	27	36	437	Construction	Statewide	Anchorage
Anchorage Times Publishing Co., Inc.	28	31	426	Manufacturing	Anchorage	Anchorage
Felec Services, Inc.	29	28	408	Trans. Communication & Utilities	Statewide	Fairbanks
Alaska Commercial Co.	30	29	408	Retail Trade	Statewide	Anchorage
Wilsyk, Inc.	31	32	402	Services	Statewide	Anchorage
Sheffield Enterprises, Inc.	32	30	401	Services	Statewide	Anchorage
Pay N Save 5/	33	41	398	Retail Trade	Statewide	Anchorage
All Alaskan Seafoods, Inc.	34	27	398	Manufacturing	Statewide	Kodiak
AIC-Martin JV, Inc.	35	100	385	Construction	Statewide	Anchorage
Yukon Office Supply, Inc. 6/	36	34	379	Wholesale Trade	Statewide	Anchorage
Chugach Electric Association, Inc.	37	33	375	Trans. Communication & Utilities	Statewide	Anchorage
Alaska National Bank of the North	38	37	369	Finance, Insurance & Real Estate	Statewide	Anchorage
H C Price Construction Co.	39	81	365	Construction	Statewide	Anchorage
Lamonts, Inc.	40	35	352	Retail Trade	Statewide	Anchorage
Tanana Chiefs Conference, Inc.	41	40	349	Services	Statewide	Fairbanks
Int'l. In-Flight Catering Co., Ltd.	42	39	348	Retail Trade	Anchorage	Anchorage
Alaska Sales & Service, Inc.	43	49	338	Retail Trade	Anchorage	Anchorage
Sheraton Anchorage Hotel	44	44	335	Services	Anchorage	Anchorage
ERA Helicopters, Inc.	45	43	331	Trans. Communication & Utilities	Statewide	Anchorage
Alaska Pulp Corporation	46	46	326	Manufacturing	Sitka	Sitka
Reeve Aleutian Airways, Inc.	47	51	313	Trans. Communication & Utilities	Statewide	Anchorage
Burger King 7/	48	42	312	Retail Trade	Statewide	Anchorage
Salvation Army, Alaska Division	49	48	310	Services	Statewide	Anchorage
First Interstate Bank of Alaska	50	54	308	Finance, Insurance & Real Estate	Statewide	Anchorage

1/ Includes Atlantic Richfield Co. employees.
2/ Currently named Standard Alaska Production Co.
3/ Includes Fairbanks Memorial Hospital and facilities in Kodiak, Soldotna, and Valdez.
4/This is Alaska's largest McDonalds franchise. It includes only Anchorage, Palmer, and Wasilla McDonalds.
5/ Seattle Standard Corp. is the parent corporation.
6/ Currently named The Office Place.
7/ This franchise includes Anchorage, Fairbanks, and Wasilla Burger Kings.

We would like to thank the employers for the cooperation and time in responding to our survey. The survey enabled us to provide this information and hope in the years to come that we may continue providing information of Alaska's Top 50.

Prospects for Aquaculture Diversification in Alaska

By Brad Pierce 1/

Aquaculture is a general term which can be defined as the cultivation of finfish, shellfish and aquatic plants in fresh or saltwater. Mariculture is a more specific term which refers to the cultivation of plants and animals in saltwater. Aquaculture in Alaska is presently centered around a highly successful salmon hatchery program where juveniles are reared in a protected freshwater environment and released to migrate to sea and return as adults. During the past few years, attention has turned to the possibilities offered by adapting techniques used in other parts of the world to utilize Alaska's clean, nutrient-rich marine waters and vast areas of suitable habitat for mariculture development. Two species—Pacific oysters and blue mussels—are currently being farmed in commercial quantity and salmon, giant kelp and scallops are being studied for their feasibility in Alaska.

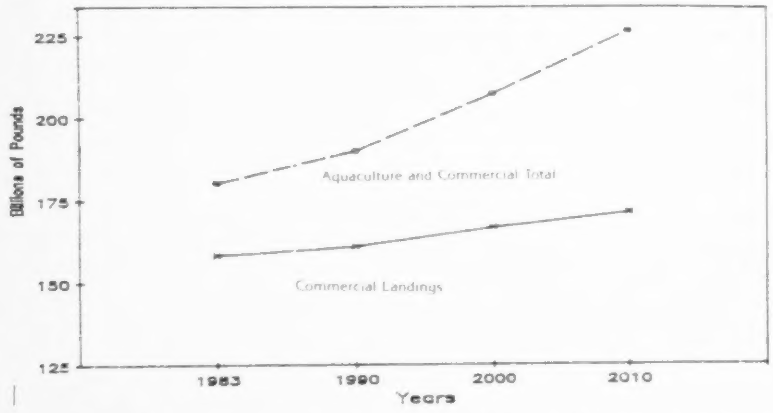
The Big Picture

Annual world per capita consumption of fish and shellfish is presently 28.6 lbs.

World commercial landings of fish and shellfish have remained rather static at 70-75 million metric tons (mt) during the past 15 years. This suggests that naturally occurring stocks are being harvested at or near their upper level of capacity. An annual average increase in commercial landings of just 0.3 percent is forecast by the National Marine Fisheries Service (NMFS) through 2010. World commercial fisheries landings accounted for about 88 percent of total world production of fish and shellfish, while aquaculture production accounted for the remaining 12 percent by 1983. As portrayed in Figure 1, the NMFS expects the commercial fisheries component to slip to 76 percent of current levels and aquaculture production to increase at a 5.5 percent annual rate by 2010.

Annual world per capita consumption of fish and shellfish is presently 28.6 lbs., which is expected to increase to 34 lbs. by the turn of the century. Over the same period, population is forecast to increase from 5.0 billion to 6.1 billion. These global factors combine to portend a 15 million mt annual market for aquaculture products by the turn of the century. Many experts argue that we are in the beginning stages of a worldwide "blue revolution" in aquaculture development similar to the "green revolution" in agriculture of the 1960s, which had profound social and economic consequences worldwide and transformed many food-importing countries of the third world into net food exporters.

Figure 1
World Production of Fish and Shellfish



Source: "Future of Aquaculture: Profile of a Growth Industry," International Aquaculture Foundation, February 1985, pg. 8.

The United States as a major market for fish and shellfish and Alaska as a major producer of seafood can be expected to experience substantial economic impacts as the worldwide protein production potential of aquaculture is realized. Domestic seafood markets are among the fastest growing in the world and have been dramatically affected by aquaculture production. United States per capita consumption of fish and shellfish has increased 13 percent since 1980, while total domestic annual consumption of seafood increased by 19 percent. This trend is expected to continue as American consumers be-

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come more knowledgeable about the health benefits of eating seafood and increasingly sophisticated about different species and methods of preparation. Most of the increase in domestic demand for seafood is being met by imports. Fresh salmon imports increased from 1.1 million pounds in 1982 to 13.8 million pounds in 1984. In fact, imports of foreign fish and shellfish grew by 14 percent in 1985 alone and the U.S. fisheries trade deficit amounted to $5.6 billion that year.

Alaska's Place in the Blue Revolution

Alaska's competitive position as a producer of aquaculture products will depend on the economics of production and distribution as well as worldwide conditions of supply and demand for seafood. The state's physical potential for aquaculture development is quite large. Major physical advantages include enormous natural salmon runs (which are being supplemented by public and private hatchery production), clean nutrient-rich waters and many undeveloped areas that are suitable for mariculture sites. For species other than salmon, however, cold water temperatures limit the number of varieties that can be cultivated economically.

Aquaculture development in Alaska has the economic advantages of a well developed fisheries infrastructure and barrier-free access at reasonable cost to rapidly growing domestic seafood markets. The classic economic development triad of cooperation between government, the university system and private industry already exists in Alaska and has been proven in the salmon hatchery systems. The major disadvantage of further aquaculture diversification in Alaska is generally high operating costs. Since the State and federal government own most of the coastal lands in Alaska and the State has jurisdiction over waters to three miles offshore, government policies (particularly as they affect operating costs) will play a substantial role in future development.

Major obstacles to diversification of the aquaculture industry are legal and political. Aquatic farming legislation (HB 108, SB 106) would have established an administrative and regulatory framework allowing further aquaculture development. Several significant issues need to be resolved including potential user conflicts over mariculture sites; the dangers of disease transmission or genetic degradation of wild stocks; environmental hazards of fish waste accumulation or effects of antibiotics in feed being diluted into the water; and impacts to the existing fishing industry, especially on fish prices and access to State loan programs.

While salmon farming is the most controversial form of development, other aquaculture activities such as the rearing of mussels, oysters, scallops and sea vegetables are not perceived as a direct threat to the traditional fishing industry. All of the other aquaculture products mentioned above which could be developed in the near term (next five years) are likely to be of minor economic importance, however, when compared to the potential of salmon farming.

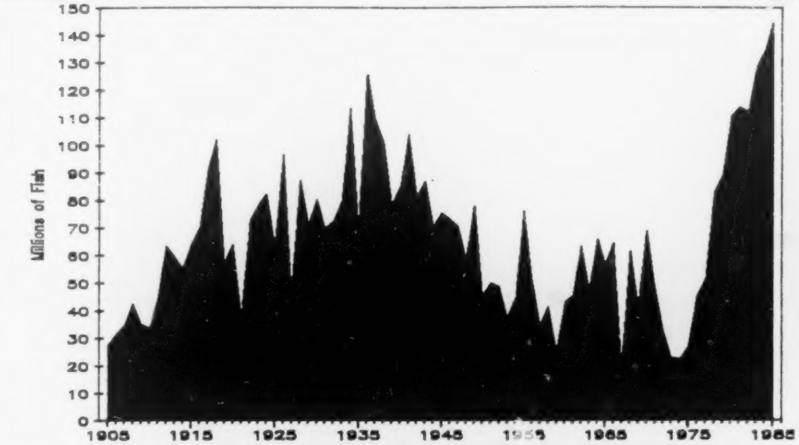
Salmon Farming

The new form of aquaculture development with the most economic potential is salmon farming. The pen rearing (farming) of salmon, where smolts are held captive in pens and fed until they reach harvester size is a relatively new industry that has largely developed since 1970. Norway is the leading producer of farmed salmon, but twelve other countries are rapidly developing their own salmon farming industries.

In 1986 approximately 59,200 metric tons (mt) of farmed salmon were produced worldwide, compared to a 657,000 mt wild harvest. By 1990, production of farmed salmon is forecast to increase to 107,000 mt while the wild harvest is expected to stabilize at about 677,000 mt. By comparison, the 1986 Alaska salmon harvest was 268,000 mt. The proportion of farmed to wild salmon in world markets is expected to increase from 8.3 percent (1986) to 13.7 percent by 1990. Figure 2 gives a historical perspective on Alaska's wild salmon production and Figure 3 provides a graphic representation of proportionate world salmon production (farmed and wild) by major producing countries.

Since about 43 percent of world salmon production and 90 percent of U.S. salmon come from the commercial harvest in Alaska, the enormous influx of farmed salmon into world markets (particularly domestic markets for premium species) expected in the early 1990s will have major implications for the value of Alaska's market share. Farmed salmon compete most directly with premium wild species—chinook, cohos and sockeye. The combined 1986 Alaska harvest of chinook (5,070 mt) and cohos (18,771 mt) was about half the 48,600 mt Atlantic farmed salmon produc-

Figure 2
Alaska Commercial Salmon Catch 1904-1985

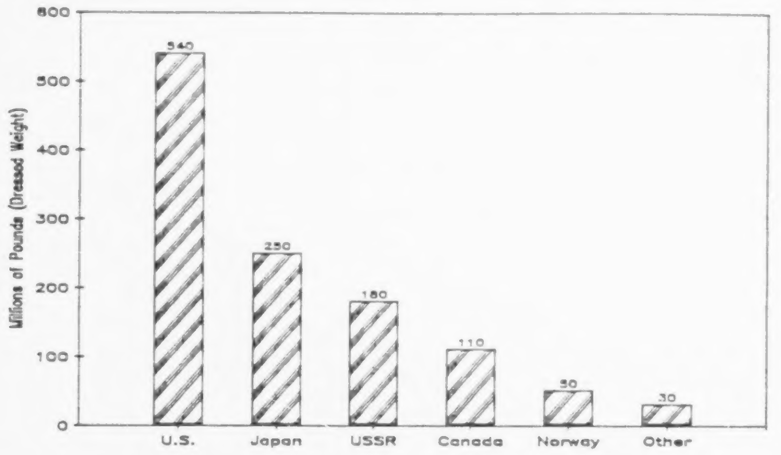


Source: Alaska Commercial Salmon Catches 1878-1984, Alaska Department of Fish and Game, Division of Commercial Fisheries, February 1985.

tion. The 1986 Alaska sockeye harvest was 88,575 mt. Sockeye are primarily sold on the Japanese market and thus are not expected to be a major factor in the fierce domestic market competition of the 1990s.

Recently British Columbia has become the focal point for farmed Pacific salmon development, with Chilean, Japanese and New Zealand production also expanding rapidly.

Figure 3
World Salmon Production, 1984



Source: *Seafood Business Report*, Volume 4, Number 2, March/April 1985.

British Columbia is likely to be Alaska's major competitor in premium domestic markets as further pen rearing development in Puget Sound and Maine has been slowed by opposition (primarily on aesthetic grounds) from waterfront homeowners and real estate interests.

Fresh Atlantic farmed salmon have been targeted at the top of the domestic market and have enjoyed their greatest acceptance with fine restaurants and specialty fish shops, where quality and continuity of supply are prime considerations. Farmed Atlantics have also captured a large portion of the European smoker market, once dominated by wild fish from Alaska. Even though the characteristics of wild Pacific species are superior (flesh color, oil content), many smokers have switched to farmed Atlantics because they can order them fresh as needed and do not have to bear the energy and interest costs of maintaining a frozen inventory of wild fish in the off season.

The next major challenge to producers of farmed salmon is to move into the mass retail market (i.e., supermarkets) and win acceptance with the great bulk of domestic consumers. This market segment is where wild fish from Alaska will likely face their greatest competition in the near future. Farmed production fits in with the ability of these stores to plan, schedule and market large fresh product volumes of consistent quality and price over long periods each year. Farmed salmon of specific quality and size can be purchased via long-term fixed price contracts. The key to mass markets will be lower prices for farmed products.

Ninety-seven percent of Alaska's production of premium salmon species is sold in frozen form. Salmon farmers only marginally compete with fisherman in Alaska in today's markets but this situation is beginning to change. As can be seen in Figure 4, the year-round volume of imports of farmed salmon is increasing rapidly as producers begin to compete more directly with domestically produced fish. By the early 1990s, large volumes of farmed fish are likely to saturate the fresh salmon market and begin to spill over to frozen markets where they will compete directly with wild fish from Alaska.

New entrants to the salmon farming industry are likely to face stiff price competition from established producers within the next five years. Those with unamortized development costs or improperly scaled operations could be very vulnerable to price undercutting by producers such as Chile, which has very low labor and feed costs, and new Alaska fish farmers may have difficulty surviving the anticipated industry shakeout. Interestingly, salmon farming operations do not appear to benefit from significant economies of scale. In Norway, the most profitable operations appear to be medium-sized (140 mt) farms which have average annual costs of about $400,000 and revenues of approximately $640,000. Larger and smaller scaled operations tend to have lower rates of return.

According to the British Columbia Salmon Farmers Association, a properly scaled operation requires a capital outlay of about $1 million in the first two years of operation before any fish are ready for harvest. About 40 percent of the capital investment (estimated at slightly over $75 million) for the 75 salmon farms currently operating in British Columbia came from foreign investors, mainly Norwegian banks. It is likely that an influx of foreign capital would occur if Alaska were to allow salmon farming, since domestic banks have no experience with aquaculture and State loan programs are generally being reduced.

Salmon farming is a capital intensive business. Labor costs amount to about 15 % of total annual operating costs. The average 108 mt farm in British Columbia employs 5.5 persons and has a payroll of $98,920. Salmon farm employees are not highly paid—the average salary in British Columbia is about $18,000 per year. In this respect, salmon farming employment is similar to the fish processing industry, however, unlike the seafood processing industry which relies heavily on nonresident and seasonal employees—fish farming provides year-round jobs to residents and could become an important source of income to coastal communities.

It is estimated that a fully developed 20,000 mt salmon farming industry in Alaska would directly employ in excess of 1,000 persons and have gross sales on the order of $130 million. A 20,000 mt salmon farming industry in Alaska is many years in the future, although a 4,000 mt industry may be possible four to five years after enabling legislation is adopted.

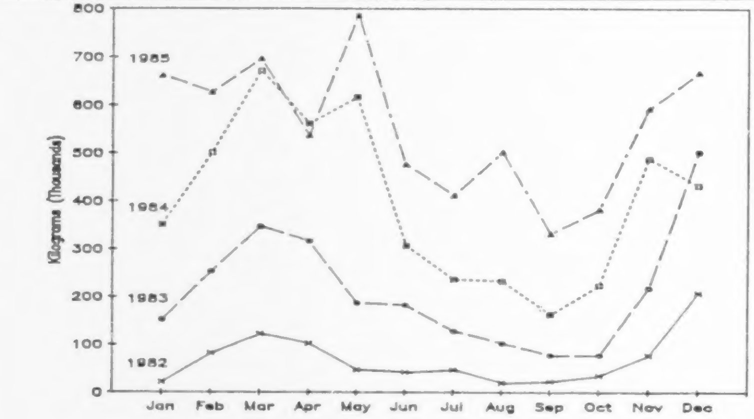
The market impacts of a 20,000 mt Alaska salmon farming industry are small compared to the impact of the expected increase in the supply of farmed salmon worldwide. Preliminary estimates indicate that increased supplies of non-Alaska farmed salmon will cause a $5 million to $36 million loss in revenue to the Alaska fishing industry by 1990. A fully developed Alaska salmon farming industry could result in an additional 10-15 percent ($500,000 to $4 million) revenue loss. In relative terms, prices for Alaska salmon are expected to fall by about nine percent as a result of world farmed salmon production and an additional one percent if Alaska were to develop a 20,000 mt industry.

The domestic seafood market is very dynamic; there appears to be considerable room for expansion of fresh salmon sales. Significant substitution effects between wild and farmed salmon have not shown up in domestic sales data which suggests that the fresh market is not close to the saturation level. There is a window of opportunity for Alaska to enter the salmon farming business that will close as existing producers establish their share of the domestic market for premium salmon products. At this point, we can only guess that real price competition between wild and farmed salmon in frozen markets will occur sometime in the early to mid-1990s.

Oysters

Oysters are the only mariculture product in Alaska that are specifically addressed in State law and regulated by the Board of Fisheries. Oysters were farmed for a brief period in Southeast Alaska prior to statehood using beach culture methods. Experimental production using raft culture techniques began in 1978, with the first commercial sales occurring in 1983. Today there are 20 permitted oyster farms in Alaska, with seven actually growing oysters and two farms with commercial sales. Half-shell oysters take two growing seasons to produce and sell for about 50 cents each or $3/lb. The Department of Fish and Game does not compile statistics on oyster production, but from conversations with producers it appears that 1986 sales amounted to 30,000-32,000 oysters.

Figure 4
U.S. Imports of Norwegian Salmon 1982-1985



Source: Ronald V. Rogness and Dr. Biing-Hwan Lin, "The Marketing Relationship Between Pacific and Pen-Raised Salmon: A Survey of U.S. Seafood Wholesalers, University of Alaska, Fairbanks.

Oysters only rarely spawn in Alaska because they require a sustained water temperature of 68 to 72 degrees for approximately one month. This biological fact has both good and bad implications for oyster farmers in Alaska. On the positive side, because oysters do not spawn, they remain fat and succulent during the summer when Puget Sound oysters get mushy and bitter. This gives Alaska producers a foothold in fresh half-shell markets during the summer months. Actually oyster farmers in Alaska have little trouble selling all they can produce. Demand for oysters is high and domestic production is declining because of water quality problems in Puget Sound and New England.

On the negative side, juveniles (spat) must be imported from outside the state. Nonindigenous spat is very hearty and has a high (90 percent plus) survival rate but is not genetically adapted to Alaska. Therefore growth rates are fairly uneven among juveniles. A selective breeding program could develop an Alaska strain within a few generations that would grow uniformly well.

A major priority for oyster farmers is to establish a hatchery in the state. At their present scale of production, it would not be feasible to generate enough from an assessment tax on gross sales to pay for a hatchery. Thus a State-funded facility appears to be the most realistic option at present.

Each shipment of oysters (or other farmed shellfish) that is sold, must be tested for paralytic shellfish poisoning (PSP) by the Department of Environmental Conservation as a condition of their shucker/shipper permit. The DEC testing lab is located in Palmer. Oyster farmers, most of whom are located in Southeast, must remove their oysters from the water and send off a sample to be tested before they can ship their product. It often takes three days to receive results back from the lab by phone. Even though the oysters can easily survive the interval out of the water, they lose some of their shelf life because of the delay. Oyster and other shellfish farmers are selling a gourmet product and freshness is of paramount importance, so the testing delay is bothersome. Thus shellfish farmers of all types in Alaska are lobbying the legislature for regional PSP testing facilities.

It takes two years for an oyster farm to produce a harvest. During the winter, the oyster rafts only require custodial care, but during the intense April to October growing season, oyster farming is a fairly labor intensive operation. The screens in the rafts must be cleaned and the oysters must be turned and sorted regularly to assure maximum growth. It is estimated to take a capital investment of about $110,000 during the first two years of operation to raise enough oysters to have an economically viable business and earn a living wage. Oyster farms are generally sited in remote locations. Because the farmer must remain on site for most of the year, it is difficult to hold down another job.

All shellfish farmers in Alaska operate under a complicated site permitting situation. The Department of Natural Resources (DNR) administers the leasing of sites for shellfish farms. The terms of shellfish site leases were originally drafted for log transfer sites and do not give an operator enough security to obtain long-term financing. The DNR is in the process of drafting new site regulations, specifically designed for mariculture operations. The idea is to have a screening procedure for new applicants that does not allow for site speculation and a prove out period to keep sites from being tied up and not developed. Operators who establish a viable business would be allowed long-term leases.

Mussels

Blue mussels are the only indigenous shellfish species that is currently being farmed in commercial quantities in Alaska. Mussels are a rich food source and can produce more protein per acre than any other farm crop. Although considered to be a gourmet item in North America, mussels are a primary food source in many parts of the world. The domestic market for mussels is quite large and growing rapidly. Some of the U.S. market for mussels is supplied by farms in Puget Sound, the Santa Barbara Channel (mussels grown on oil rigs) and New England, while imports from Europe, Chile, New Zealand and Asian countries account for most of the rest.

Because of water quality problems, no new mussel farms are likely to be permitted in Puget Sound in the near future. Another problem faced by shellfish growers in Puget Sound is plankton blooms (red tide) in late summer which nearly shut down sales for about two months each year. In many areas of New England, harvested mussels must go through a depuration process, where they are flushed with clean saltwater for a certain time period before they can be sold. European mussel farmers are also facing severe water quality problems. These factors add up to a very promising domestic and export market situation for mussel farmers in Alaska. Freight rates from Alaska to both the U.S. and Europe are cheaper than they are for several of the exporting countries cited above.

There are currently five permitted mussel farms in Alaska—three in Kachemak Bay and one each in Prince William Sound and Kodiak. Mussel farmers benefit from the same market situation as oyster farmers. Thus far, only one farm is producing mussels in commercial quantities (10,000 lbs. in 1986).

Mussel farming is a moderately labor intensive business. The larvae can be collected at the free floating stage on lines suspended in the water or juveniles can be scraped off rocks or cliff faces and contained in sock nets around a hanging line. When the mussels become attached to the line, the containment sock is removed. The hanging lines are then suspended from rafts. Periodically the lines must be inverted and sediment and debris scraped off. Mussels take from 12-18 months to mature and can be harvested at any time of the year.

Mussels are sold live, in the shell for about $1.45/lb. wholesale and $2.99/lb. retail. Based on the economics of present operations, six rafts yielding an average of 5,000 lbs. each would generate sufficient returns for a family living at the farm site, once initial investment costs have been recovered. We do not have an adequate information base to discuss investment costs in detail but it appears that mussel farming could be an ideal family-type operation that can be practiced in many suitable coastal regions of the state. Combined with the cultivation of other species, it can allow a small operator to make a comfortable living and enjoy a remote life-style. In some other areas of the world, mussel rafts have been placed around salmon pens to feed off the fines from salmon food suspended in the water.

Scallops

The stable price of scallops over the years (about $4/lb.) and a growing domestic shellfish market makes it a very attractive species for mariculture. There are several scallop larvae collection efforts underway in the waters around Kodiak Island and other areas of Prince William Sound and Southeast. The Kodiak efforts are being coordinated under a joint Alaska-Japan development project to adapt techniques used to grow the Japanese scallop, which has been under cultivation for over twenty years in that country. Japan has a very large scallop culture industry, located mainly on Hokkaido, that produces about 200,000 mt of scallops annually. Kodiak has some of the richest scallop-growing conditions in the world and the species that is being targeted is the weathervane scallop, which is the largest of ten separate species found in the area.

Weathervane larvae drift in the water and seek a place to attach themselves. Spat are collected by suspending onion bags full of monofilament line from anchored and buoyed lines near known scallop beds. The larvae attach themselves to the monofilament in the bags until they become mature enough to drop off and continue their life cycle on the bottom. By this time they are too big to fit through the onion bag mesh and are captured. To date, many other kinds of shellfish have been collected but weathervane have proven elusive. A large-scale effort is planned for this summer.

In the initial grow-out phase, small scallops are placed in pearl nets to filter feed from the water as it is moved by tides and currents through the mesh of the net. Scallop culture is fairly labor intensive. Periodically the scallops must be removed to be cleaned, checked and sorted. After approximately one year, the scallops are moved to final grow-out nets of larger mesh or alternatively strung on lines through holes drilled in their shells. Within two to three years the scallops reach harvester size of about five inches in diameter. Maricultured scallops are generally sold on the gourmet half-shell market.

If current larvae collection efforts are successful and a reliable source of spat is developed either through wild capture or hatchery techniques, scallop mariculture could become a viable industry, suitable to many of the coastal areas of Alaska. Based on the experience of the Japanese industry, there could be potential for cultivating scallops in Alaska.

Giant Kelp

Herring roe-on-kelp is the highest priced fisheries product harvested in Alaska. Roe-on-kelp is known as kazunoko kombu in Japan where it is a traditional delicacy. The Japanese market is expected to provide the impetus for development of a sea vegetable industry involving the cultivation of giant kelp in Alaska. The roe-on-kelp pound fishery, which would serve as the basis for giant kelp mariculture, occurs in Prince William Sound for a few days each spring. In 1987, herring roe-on-kelp sold for $10 - $14/lb. (depending on the grade of product) and the pound fishery grossed approximately $1.2 million on a harvest of 60.26 tons.

In the pound fishery, giant kelp is harvested in Southeast (where it grows wild) and is transported to Prince William Sound (where it is not native). The kelp is suspended in net-enclosed rafts or pounds. Ripe schools of herring are caught by fishing vessels in seine nets and transferred to the pound, where they are held until spawning occurs on the enclosed kelp. The roe-laden kelp is then harvested at the optimum time for the highest quality roe and the herring are released to return and spawn again in future years.

In the traditional sac roe fisheries, the spawning herring are caught in nets, frozen in blocks and generally shipped to Japan to be stripped of their roe. Because the adult herring are not killed and a much higher valued product is produced, the pound fishery is an attractive alternative to the traditional sac roe fisheries.

A major concern in the management of the existing roe-on-kelp fishery is the potential for overharvesting the wild giant kelp resource. One way to avoid this would be to artificially cultivate kelp on farms to enhance existing beds. Sheldon Jackson College in Sitka is conducting an experimental project to test the feasibility of kelp mariculture in Southeast under the same Alaska-Japan cooperation agreement as the scallop project in Kodiak. A smaller kelp project will also be conducted in Kodiak over the next year.

Giant kelp is cultivated by collecting sporofites from wild plants. At the appropriate stage of development, juvenile plants are started on strings, which are then threaded through a groundline that is suspended just off the seabed. When the plants reach maturity, the groundline is retrieved and the kelp fronds are harvested.

Herring roe-on-kelp is the highest priced fisheries product harvested in Alaska.

In recent years the pound fishery has become so popular that the Board of Fisheries limited entry to the pound fishery at 125 permits in February of this year. The 1987 fishery quota was set at 85 tons. The Board of Fisheries has been petitioned by many groups wishing to start pounding operations in other areas of the state, but has turned them down because available roe herring stocks are being fully exploited by traditional net fisheries.

The Department of Fish and Game is in the process of surveying widely scattered herring stocks to see if there are any which are currently unexploited by existing sac roe fisheries that could support further pound fisheries. Thus it appears that while kelp farmers could have a good roe-on-kelp fishery market, the ultimate feasibility of giant kelp mariculture will probably depend on locating an adequate roe herring resource.

Conclusion

Aquaculture diversification is proceeding along several paths in Alaska and holds great promise for the economies of coastal communities. Two recent developments have conspired to make the articulation of a State policy for mariculture development take on a sense of urgency. First the Attorney General's Office has issued an opinion that says that salmon farming is legal under existing statutes. Second, a lawsuit has been filed against the State by Wilderness Acquisitions, Inc. for denial of the permits necessary to start a hatchery and salmon farm at Warm Springs Bay on Baranof Island. If the State loses this case in court, it could open the way for further litigation and potentially allow salmon farming under very loose regulatory guidelines.

In response to these developments, the legislature has passed a bill (Chapter 70, SLA 1987) that places a one-year moratorium on the issuance of licenses, permits, leases or authorizations for commercial finfish farming but allows the experimental scallop and giant kelp projects to proceed. Oyster and mussel farmers will continue to operate under the current permit situation until an agreeable regulatory structure can be worked out. This legislation is designed to allow an interim committee of representatives of the various regulatory agencies and interest groups to design a comprehensive policy for further mariculture development.

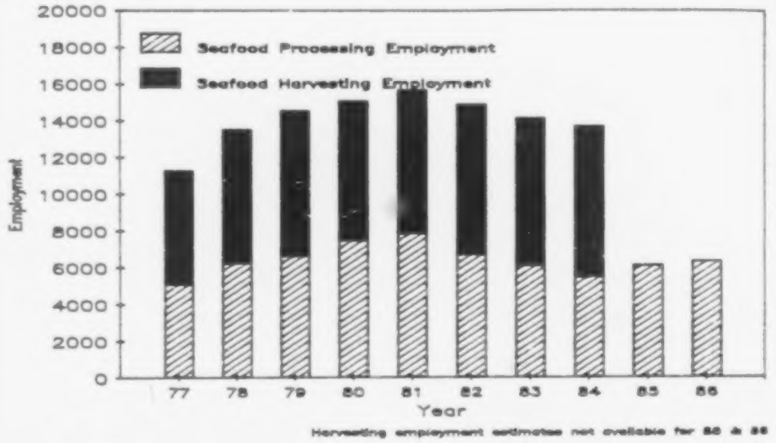
All parties concerned feel that aquaculture diversification is too important to proceed haphazardly and should be undertaken within a policy framework that is clearly laid out in State law.

Employment in Alaska's Seafood Industry

By Neal Fried and John Boucher

The seafood industry has been a major contributor to Alaska's overall economy since the late 1800s. Commercial fish canning began in 1878 in Southeast Alaska and the number of canneries in Alaska increased steadily for the next fifty years. The number of canneries reached their peak in 1929 at 160. Although the number of canneries has declined since, the seafood industry remains an important economic activity in Alaska. Canneries and fishing fleets provide economic activity around which coastal communities from Ketchikan to Kotzebue sprang up and prospered.

Figure 1
Seafood Industry Employment 1977-1986



In recent years oil has been such a dominant force in Alaska's economy that strong growth in Alaska's seafood industry has gone unnoticed. Now, with lower oil prices and reduced state government spending, Alaska's seafood industry is reemerging as a leader in employment and industry growth. Today, employment is more than double the levels of the 1960s and early 1970s. The development of new seafood products, the recovery in the salmon fishery, and expanding shellfish and bottomfish harvests have made this growth possible.

This article examines employment and trends in the seafood industry. Seafood industry employment is broken into two components; seafood harvesters (fishermen) and seafood processors (manufacturing). This method is used for several reasons. First seafood processing and harvesting employment estimates are obtained by separate methodologies. Seafood processing employment is covered by unemployment insurance and therefore included in the nonagricultural wage and salary employment figures published monthly. Seafood harvesting employment is not covered by unemployment insurance, unless the number of the crew is ten or more and they receive a wage or salary.

Since most crew members work for a share of the catch they are considered self-employed and not included in the nonagricultural employment numbers. Data from the Commercial Fisheries Entry Commission and crew factors for various types of fisheries are used to estimate seafood harvesting employment. (For an explanation of methodology see *Alaska Seafood Industry Employment*, Alaska Department of Labor, June 1987)

In addition to methodological considerations, seafood processing and harvesting are different occupations. Seafood harvesting attracts independent individuals who are willing to take high risks for potential big gains. Processing work on the other hand is manufacturing factory work at relatively low pay. The levels of employment are related, however, and estimates of seafood processing employment give an indication of the level and trend of seafood harvesting employment (Figure 1 and Table 1).

Seafood Harvesting Employment

Since seafood harvesting employment is classified as self-employed and not collected by an ongoing survey such as that used to collect nonagricultural wage and salary employment an alternative method to estimate seafood harvesting employment was developed. This data was first estimated for 1977 through 1981 and was recently updated through 1984. (See *Alaska Seafood Industry Employment*, Alaska Department of Labor, June. 1987.)

From 1977 to 1984 the number of seafood harvesters in Alaska increased by one-third, with most of the increase occurring prior to 1980. In 1977, annual average employment in all fisheries was 6,164. By 1979, seafood harvesting employment was 7,919 and it has remained around 8,000 since. In 1984, seafood harvesting employment recorded its highest level of employment since 1977 with an annual average employment of 8,202.

Seafood Processing Employment

The seafood processing component is the other major employment generator in Alaska's seafood industry and is Alaska's leading manufacturer. Over the past decade annual average seafood processing employment has been relatively stable. The low point was 5,463 annual average employment in 1977. At that time salmon harvests were just beginning to recover after a number of lean years. Employment in the industry peaked in 1981 when a very healthy salmon season pushed annual average employment in seafood processing to 7,957, a record. Ironically, this was also the year the collapse of the king crab fishery began.

Table 1
Seafood Industry Employment by Major Category
1977-1984 Annual Averages

Year	Seafood Processing	Seafood Harvesting	Total Seafood Industry
1977	5,122	6,164	11,286
1978	6,274	7,278	13,352
1979	6,657	7,919	14,576
1980	7,510	7,590	15,100
1981	7,884	7,821	15,705
1982	6,730	8,194	14,924
1983	6,132	8,029	14,161
1984	5,521	8,202	13,723
1985	6,149	*	
1986	6,366	*	

* Estimate not available

No other industry in the state is as seasonal as the seafood industry. In 1986 seafood processing employment peaked at 15,007 in July; with an annual average 6,813 jobs. This represents 41-45% of the jobs in the seafood industry and 3% of the states total wage and salary employment. During the past three years the peak month's employment in seafood processing is seven times the low month's employment. The peak month traditionally occurs during the salmon harvest in July or August and the low point is in January. (Figure 2)

Trends in the Seafood Industry

Through 1984, three fisheries were responsible for most of the growth in seafood employment: the salmon fishery, the halibut fishery and the herring fishery. Of the 2,000 seafood harvesters added from 1977 to 1984, over half were in the salmon fishery, 400 in the halibut fishery, and 300 in the herring fishery. The bottomfish and sablefish fisheries account for most of the balance of seafood harvesting employment growth since 1977.

Seafood harvesting employment and other available data show that salmon is the most important species for Alaska seafood harvesters (Figure 3). In 1984 the salmon fishery provided 65% of all seafood harvesting employment. After salmon, the nearest fishery was shellfish which accounted for 14% of the total employment. Halibut was third at 11%.

Since 1977, the mix of employment by species has changed because of the collapse in the shellfish fishery. In 1977, the shellfish fishery accounted for 18% of all seafood harvesting employment and it maintained that level through 1983. By 1984, harvesting employment in the shellfish fishery dropped off dramatically because of disappearing shellfish stocks. From 1977-1980 the annual shellfish catch

Figure 2
Seasonality of Fishing Industry Employment 1984

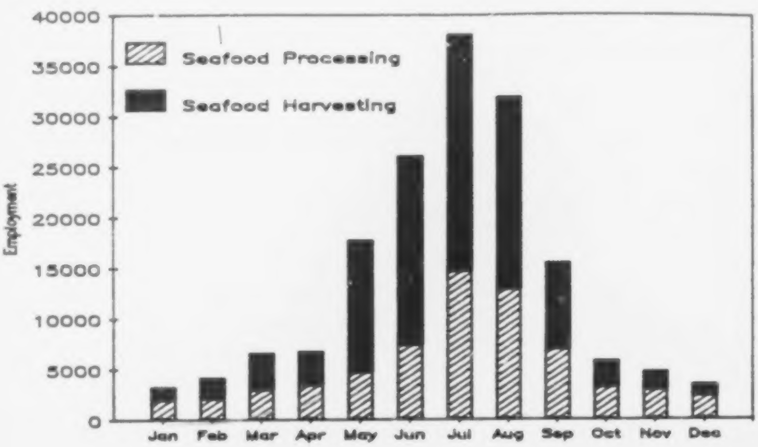


Figure 3
Seafood Harvesting Employment by Species 1984 Annual Average

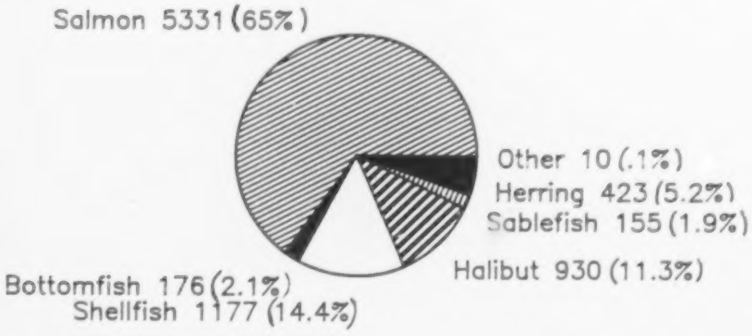
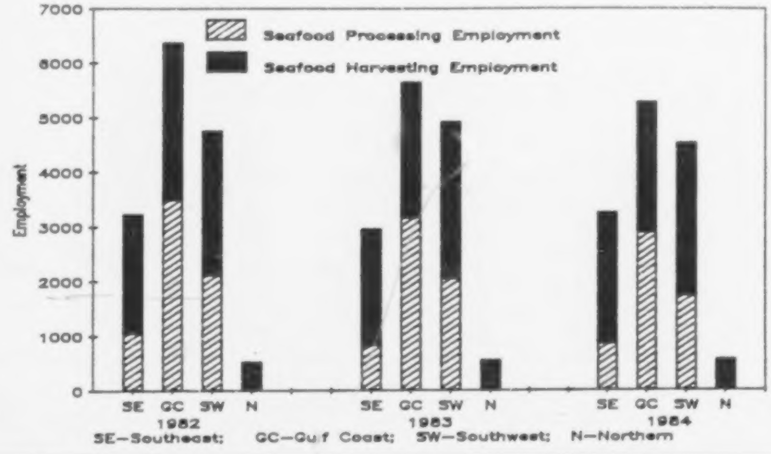


Figure 4
Fishing Employment by Region 1982-1984



was over 300 million pounds, but by 1984 the shellfish catch was down to 91 million pounds, little more than one-quarter of the total harvested in the late 1970s.

In contrast to the decline in employment in the shellfish fishery, the halibut fishery has seen its share of total harvesting employment steadily increase since 1977. In 1978 the halibut fishery accounted for 7% of total seafood harvesting employment. By 1984 it had climbed to 11% of the total seafood harvesting employment.

Unlike Alaska's economy as a whole, seasonality has increased in the seafood processing industry over the past decade. During the late 1970s and early 1980s the difference between high and low months was three-fold unlike the seven-fold it has been during the past three years. Seasonality of the industry has increased because: 1) the collapse of the king crab fishery which provided significant employment during the non-salmon season, 2) other shellfish harvests such as shrimp and tanner crab suffered declines, 3) the volume of salmon processed increased, and 4) certain fishing seasons, such as halibut and herring were shortened so that an increasingly concentrated effort during a shorter period of time now takes place, causing more dramatic swings in employment.

In the future there could be some smoothing out in the seasonality if the bottomfish fishery continues to grow. Fishing activity in bottomfishing is not limited to three or four months out of the year, but instead is a year-round activity. This year a number of processors in Kodiak plan on operating both bottomfish and salmon lines simultaneously for the first time. A return to a healthy shellfish fishery could also temper the fluctuations in employment. The less seasonal the industry becomes, the more Alaskan residents could depend on it as source of their livelihood.

Geographic Distribution

Not surprisingly, seafood industry employment is concentrated in Alaska's coastal communities and is an important contributor to employment in all the coastal regions of Alaska (Figure 4). In rural areas seafood harvesting's stature as a source of employment is greater than urban areas where local economies are not as dependent upon this single resource. In 1985, 95% of the seafood processing employment was concentrated in three regions—the Gulf Coast (including Anchorage/MatSu) (48%), Southwest (32%) and in Southeast (16%). Interior Alaska is the only region where there is no significant seafood employment.1/

Southwest Alaska has the largest amount of seafood harvesters and its economy relies more heavily on harvesting employment than any other region in Alaska. On an annual average basis, seafood harvesting employment in the Southwest region was

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1/ Because of the way harvesting data is aggregated, Anchorage/MatSu is included with the Gulf Coast Region's data. Seafood harvesting employment is not available separately for the Anchorage/MatSu Region. In addition the processing data for the Southwest Region falls in areas that are included in the Northern Region for fish harvesting.

nearly 2,800 in 1984. If seafood harvesting employment were compared to nonagricultural wage and salary employment, seafood harvesting would be the largest employer except local government. If seafood harvesting and seafood processing employment are added together they surpass local government's total annual employment. In June, July, and August, seafood harvesting and seafood processing employment combine to create over 10,000 jobs in the region. A recent report by the University of Alaska's Institute of Social and Economic Research (ISER) on the commercial seafood industry in Alaska estimated that the fisheries industry generated 47% of all income earned in the Southwest region. If just private sector basic industry income is considered, fishing generated 98% of all private sector basic industry income in Southwest Alaska.

The Gulf Coast and Southeast regions of Alaska are not as dependent upon seafood harvesting employment as Southwest Alaska, but seafood harvesters do play a significant role in their economies. Processors in the Gulf Coast and Southeast often benefit from fish harvested in other region's waters. The Southwest region produced the largest harvests—almost twice as large as the Gulf Coast's but its processing employment is significantly smaller. It is not unusual for a share of the large Bristol Bay salmon catch to be processed in the Gulf Coast.

In 1984, seafood harvesting employment in the Gulf Coast and Southeast Alaska was comparable, slightly under 2,400 in both regions. Although Southeast Alaska had slightly more harvesting employment in 1984 than the Gulf Coast, historically the Gulf Coast has had more seafood harvesting employment. The flip-flop is due to the collapse in the Gulf Coast's crab fishery. The Gulf Coast region has historically relied on the shellfish fishery for about 25% of its total harvesting employment. On the other hand, Southeast Alaska's shellfish fisheries share of total employment only recently topped 10% of total harvesting employment.

Gulf Coast seafood processing is dominated by Kodiak and Cook Inlet processors. Kodiak is Alaska's number one fish port for value of fish landed and second only to New Bedford, Maine nationwide. Kodiak presently has 13 active fish processors, the largest number in any one community in the state. The Southwest region is dominated by Dutch Harbor and Bristol Bay processors.

The Northern region's seafood harvesting employment is rather small when compared to the other regions. The fishing industry's importance is minimal when compared to the oil industry, but it does provide employment and income primarily to the northwest coastal communities of the state.

Floating Processors Increase in Number

One change occuring in the processing arena is an increase in the number of floating fish processors. Floating processors provide flexibility by moving with ease from one fishery to the next. According to the Alaska Department of Environmental Conservation's records there are approximately 3-times as many floating processors permitted in 1987 than there were in 1980.

There is some concern regarding this trend because many floating processors are based out-of-state, and therefore may more readily buy their supplies and bring in their crews from elsewhere. This would mean little economic activity generated in Alaska's economy, and would make the goal to improve resident hire much more difficult. The growth in the number of floating processors does not necessarily mean Alaska will accrue less economic benefit from floating processors than shore based operations. It will depend on whether these floating processors dock in Alaska's ports for repairs, supplies and workers.

Product Changes

The biggest change occurring presently is the growing bottomfishery in Alaska. Though we are unable to accurately break down seafood processing employment by species we know this fishery has made measurable inroads into Alaska's processing industry. The bottomfish harvest has increased dramatically for domestic fisherman. The areas most active in bottomfish processing have been Kodiak and Dutch Harbor. During the past year, processors in Kodiak and in Dutch Harbor have processed bottomfish for filets, surimi, and blocks.

Some Cook Inlet processors and others in the state also began to process bottomfish during the past two years, and others are considering expanding to process bottomfish. The potential is great, and if Alaskan based processors succeed in capturing a large portion of the harvest, it could provide the biggest boost to the seafood industry since the growth in the King Crab harvests of the late 1970s and early 1980s. An additional benefit of a growing bottomfishery is the smoothing of the seasonality of this industry.

An increasing amount of salmon are being processed for the fresh/frozen market as opposed to canning. In 1977 32% of the salmon processed were fresh or frozen while 64% were canned. By 1985 the proportions had reversed themselves; 66% were processed for the fresh/frozen market and 32% were canned. These proportions fluctuate each year but with a trend towards a greater percentage of fresh and frozen salmon. For example in 1982, the year after the botulism scare, 70% of the salmon were fresh/frozen. The effects a shift to a fresh/frozen product has had on processing employment is not clear. Some claim it utilizes more labor and other say less.

In addition to a growing fresh/frozen product, Hormel, Bumble Bee and others are introducing a new method to can skinless and boneless pink salmon. The project is an attempt to broaden the appeal of canned pink salmon. If it proves to be successful it could help insure a permanent market for Alaska's largest salmon fishery.

Employment of Residents

Few residents work in Alaska's seafood processing plants. As a low paying and uncertain source of employment it is difficult to sustain a person in areas with a high cost of living.

In 1985, 69% of all seafood processing workers were nonresidents. The migration of thousands of college students and others from the lower 48 is an annual ritual. They are Alaska's 'migrant' workers. A majority come for three to four months during the summer season and then leave. Some begin with the herring fishery in Togiak in April and work their way down the coast to Ketchikan in September to process salmon. The seasonality of the fishery partially explains why so few residents choose to work in this industry.

Wages paid in this industry make work less attractive to residents. The average entry hourly wage is $5.66 per hour and the average hourly wage for a person with a two years of experience is $6.67. Long working hours can boost earnings, but in spite of this, the average monthly wage in this industry remains low. In 1985 the average monthly earnings was $1,443 in seafood processing, only 61% of the monthly average of $2,369 for all industries. The highest wages are paid during the salmon season because of longer hours worked. The average monthly earnings climb to $1,600 during the third quarter of the year.

Over time, seafood processing earnings have increased little, and if they are adjusted for inflation they have actually lost purchasing power. The average monthly earnings would have fallen further if salmon's relative importance hadn't increased over the past six years because of the poor shellfish fishery. The combination of low wages, seasonality, a long tradition for many fish processors to hire their crews outside of Alaska, and possibly working conditions have all tended to make the percentage of nonresidents high in this industry.

In the future the number of residents represented in the processing industry could grow for two reasons. Presently there are far fewer employment opportunities in the state than in past years and therefore more state residents may choose to work in this industry. Also, the Department of Labor and a group of fish processors are making greater efforts to facilitate and encourage state residents to work in this industry.

Resource Management and Seafood Harvesting Employment

Any discussion of seafood harvesting employment must acknowledge the enormous effect that resource managers have on seafood harvesting employment. Since so few variables affecting the availability of the fisheries resource can be controlled, resource managers control the number of fishermen, the type of gear used, and the time that fishing can take place. In short, resource managers can be one of the most important variables in the amount of seafood harvesting employment.

Alaska's salmon fishery is an example of how resource managers have affected salmon harvesting employment. Since 1975, Alaska's salmon fishery has been managed through limited entry. Permits are issued that limit the number of seafood harvesters that have access to the fishery. The result has been that except for a jump in salmon harvesting employment that occurred from 1977 to 1978, salmon harvesting employment has remained stable at around 5,000 harvesters.

Limited entry is not the only way that resource managers can affect harvesting employment in a fishery. Halibut harvesting employment has been made more seasonal since 1977 because the halibut fishery is not limited. Since fishermen are allowed free access to the fishing grounds, the length of halibut openings have been dramatically shortened. In 1977 the halibut season lasted five months and monthly employment never exceeded 1,800. By 1984 halibut was a one month fishery with employment during that month of over 9,000.

Resource managers do not always act as a limiting factor to seafood harvesting employment. In the case of the bottomfish industry, Congress mandated with the Magnuson Act of 1980 that resource managers act to expand seafood harvesting employment by "Americanizing" the bottomfish industry. The growth of bottomfish harvesting employment, at least through 1984, has been slow but it has been accelerating. From 1983 to 1984, the total number of employees involved in bottomfish grew 47% compared to the usual 20 to 25% growth. Bottomfish harvesting employment has grown 450% from 1977 to 1984.

Projections of the American take of bottomfish for 1987 indicate that volume processed will be double the volume processed in 1984. In Japan, retraining programs are being instituted for Japanese bottomfishermen who have been laid off due to Americanization of the industry. All of these point to increasing bottomfish harvesting employment for the immediate future.

Another way resource managers affect seafood harvesting employment is by increasing the available supply of fish through hatchery programs. By enhancing the supply of salmon through state owned and private nonprofit hatcheries, the salmon fishery has increase from 304 million pounds harvested in 1977 to 650 million pounds in 1984.

Conclusion

The seafood industry provides many benefits to Alaska's economy including direct jobs. In 1985 the value of Alaska's fish harvest was $565 million but the wholesale value to the processors was $1.1 billion. The processing of the fish provides an "added value" to the fish product. In other words the fish becomes a more valuable product after it is processed and some of the "added value" accrues to the state's economy in the form of direct jobs, taxes, and indirect jobs in the transportation and services industries. In 1986 $115 million was paid out in wages. Processors purchase supplies and other services and pay taxes in the communities they are located. And last but not least they provide the necessary infrastructure to operate one of Alaska's largest industries—fishing.

Working in the Fishing Industry

By James Wilson

Natural resources are the backbone of Alaska's economy. Furs, gold, oil, timber, and fish have all been important in the development of the state. The fishing industry is one of Alaska's largest employers with over 40,000 people participating in the harvesting and processing of fisheries stocks during the course of a year.

The fishing industry is highly seasonal with intense activity during a limited period of time. The last year for which estimates of fish harvesting employment were produced was 1984 (Table 1). At the peak of the salmon season over 21,000 people were working on fishing boats. Peak employment for shellfish harvesting was nearly 2,300, while over 8,600 people worked the halibut season during May.

Work on fishing vessels is typified by long hours, physically demanding work, and crowded living conditions while earnings of workers may be low.

The highest levels of employment in seafood processing occur during the summer months corresponding with the salmon runs (Table 2). During 1986, seafood processing employment peaked at approximately 15,000 during July. Because of the seasonal nature of the work the industry depends heavily on migrant workers to harvest and process fish.

Table 1
1984 Fish Harvesting Employment
by Commercial Fishery

	Salmon	Shell Fish	Halibut	Bottom Fish	Sable Fish	Herring	Other
Annual Average	5,331	1,177	930	176	155	423	10
January	122	861	0	198	35	44	3
February	248	1,582	0	181	47	0	4
March	429	2,272	0	245	63	584	26
April	543	1,102	0	306	182	1,149	23
May	719	614	8,689	216	139	2,603	13
June	16,043	961	483	110	407	643	3
July	21,834	973	244	91	281	20	3
August	16,681	860	1,169	79	230	4	0
September	6,233	1,215	563	97	396	6	4
October	815	1,583	8	129	37	10	23
November	194	1,349	0	241	22	12	11
December	116	759	0	226	38	8	10

Table 2
1985 Fish Processing Employment
by Industry

	Total	Canning Curing	Fresh/Frozen Packaging
Annual Average	6,150	1,897	4,253
January	1,941	754	1,187
February	2,601	888	1,713
March	2,803	882	1,921
April	3,980	1,006	2,974
May	5,803	1,457	4,346
June	8,354	2,241	6,113
July	15,546	5,072	10,474
August	14,876	4,649	10,227
September	9,660	3,169	6,491
October	3,539	1,091	2,448
November	2,490	744	1,746
December	2,196	805	1,391

Description of Work

Work on fishing vessels is typified by long hours in all kinds of weather. Fishing trips can last from one day to several weeks. The work is physically demanding and long hours are often worked under adverse conditions. Living conditions can be crowded and the earnings of workers may be low. Pay for fish harvesters is usually on a share basis and depends upon the success of the venture. Fishing boat crew members are expected to provide their own boots and clothing. Crew members will try to work in more than one fishery to maximize their earnings.

For seafood processing workers the work is usually indoors under wet, cold, and noisy conditions. Warm clothing and good boots are recommended. Rain gear is sometimes required. Jobs often involve long shifts that require standing most of the time while reaching for and handling fish and shellfish. In some cases the employer provides room and board for their processing workers.

Table 3
Job Opportunities in Seafood Processing
Estimated future Employment Levels for
Select Occupations

Select Occupations	1986 Employment	1991 Employment	Annual Growth
Butchers & Meatcutters	302	304	0
Cannery Workers	6,286	7,580	259
Supervisors, Misc.	181	197	3
Graders & Sorters	181	217	7
Meat/Fish Cutters - Hand	764	920	31

Note: Employment Services Activity data cover July 1985 to June 1986.
Note: 1991 occupational employment is estimated based on current staffing patterns within the industry.

Table 4
Alaska Department of Labor Job Service
Job Orders and Average Wage Offered
for Cannery Workers
July 1985 to June 1986

Job Service Office	Number of Openings	Hourly Wage
Statewide	7,571	$5.60
Kenai	1,291	5.58
Ketchikan	1,062	5.59
Anchorage	704	5.12
Valdez	673	5.76
Homer	587	5.85
Seward	528	6.25
Kodiak	481	5.72
Petersburg	441	5.48
Sitka	367	5.95
Dillingham	184	5.31
Bethel	130	6.84
Juneau	89	5.63
Dutch Harbor	79	5.25
Glennallen	67	6.00

Table 5
Wage Rate Survey
Data for Cannery Workers
July 1986

		Statewide	S.W. Region	Gulf Region	S.E. Region
Non Union Wages:					
Entry Level	Average	$5.66	$5.59	$5.72	$5.62
	High	8.66	6.00	6.10	
	Low	4.30	5.40	4.50	
2 Yrs Exper	Average	$6.67	$6.20	$6.50	$7.95
	High	8.66	8.50	10.65	
	Low	4.55	5.50	6.50	
Union Wages:					
Journeyman level		$5.81	Regional data not available		

Job Openings

Employment estimates for fish harvesting (Table 1) show the number of people working during a season. How many of the jobs are available because of crew turnover or the expectation of a good harvest is a point of speculation. No data base exists to quantify this. For fish harvesting there appears to be a surplus of inexperienced people and a sufficient number of experienced crew members with skills to meet the needs of the industry.

On the other hand, Job Service data on seafood processing show fewer applicants than job orders. Employment growth is expected to occur with additional jobs being created. Many people who work in seafood processing are placed by the Alaska Department of Labor's Job Service offices. Roughly 7,000 job orders were received from employers during the period July 1985 to June 1986 (Table 3). For cannery workers the greatest number of job orders were in Kenai and Ketchikan (Table 4). Over 700 job orders for cannery workers were processed through the Anchorage office, our state's largest urban center.

Hiring Practices

For fishing boat crew members the hiring is done by individual boat owners. Success in finding a job depends upon the person and knowing when and who to approach. Often hires are accomplished by walking the docks and talking to individual skippers and other crew.

Boat owners prefer working with experienced hands, especially those they have signed on before. The most successful and experienced skippers have their choice of crew members. All persons working on a commercial fishing vessel are required to have a crew members license. The license is available through most vendors which issue sport fishing licenses. The fee for residents is $30.

Many of the companies operating seafood processing facilities in Alaska are based outside the state. Some of the hiring is done in their offices in Seattle prior to the start up of the season. As described above, the Alaska Employment Service processes many job orders for seafood processing workers and there is a shortage of in-state applicants for these jobs.

Wages

The usual arrangement in seafood harvesting is for crew members to share profits. Earnings will depend upon the size and type of the catch. An inexperienced crew member may receive a share as low as 6%, but most of the crew members receive shares ranging from 10% to 33%, depending upon their experience and the type of fishing being done. According to the Alaska Career Information System description for fish harvesting, over one-half of the fishing crew members earn less than $5,000 per season and only about 10% earn more than $20,000.

While boat crew members are paid on a percentage basis, seafood processing employees receive wages on an hourly basis. The statewide average entry level wage for cannery workers was $5.66 during July 1986. The average wage for workers with two years of experience was $6.67 an hour (Table 5). The wage rate for cannery workers varies depending upon the employer and location of the processing site (Table 6). Over $112 million was paid in total wages by the food processing industry during 1985.

Risks of Working in the Fishing Industry

The food processing industry, predominately seafood processing, has one of the highest rates of worker injuries and illnesses in Alaska. The Occupational Safety and Health Administration recordable injuries and illnesses in food processing was 32.5 cases per 100 full time equivalent (FTE) workers in 1985. This is nearly three times the private sector rate of 12.6 cases per 100 FTE workers for injuries and illnesses.

The time loss rate for workdays lost due to injury or illness for the food processing industry was 123 days per 100 FTE workers versus the 81 days per 100 FTE workers in the overall private sector. Table 7 contains a summary of the number of cases for time loss injuries and illnesses by the type of injury.

Table 6
Alaska Department of Labor Job Service
Job Orders and Average Wage Offered
for Other Seafood Related Workers
July 1985 to June 1986

Job Service Office Occupation	Number of Openings	Hourly Wage
Dillingham		
Misc. Fishing	20	$11.63
Dutch Harbor		
Misc. Fishing	6	9.32
Homer		
Misc Fishing	10	7.42
Juneau		
Hand Packers	5	7.85
Ketchikan		
Hand Packers	5	6.10
Kotzebue		
Cutters & Trimmers	107	8.91
Misc. Fishing	3	12.65
Kodiak		
Cutting Machine Op	149	6.44
Hand Packers	30	6.15
Cutters & Trimmers	16	5.81
Misc. Fishing	21	6.53
Seward		
Cutting Machine Op	35	4.05
Testers/Graders/Sorter	15	5.85
Sitka		
Hand Packers	31	4.95
Valdez		
Testers/Graders/Sorter	18	4.50

Note: Job service offices and Occupations were selected for which the occupational classification would most directly be related and limited to seafood processing.

Table 7
Injury Characteristics
for Time Loss Injuries and Illnesses
in the Seafood Processing Industry
1985

Number of Case By Nature of Injury	# of Cases	% of Total
Sprains and Strains	286	35.4
Contusions, Bruises	158	19.5
Cuts, Lacerations	94	11.6
Fracture	68	8.4
Other	203	25.1
Total	809	100.0

Over one-fourth of the total estimated work related illnesses in food processing in 1985 were skin diseases. Discussions with seafood processing employers indicate that dermatitis and contact allergy conditions are the most common occupational illness cases in the industry. As in other industries the leading cause of time loss injury are falls and overexertion, which result in back injuries.

Unlike seafood processing workers, fish harvesters are not covered under the Alaska Workers' Compensation Act. Information on work related injuries in the fishing industry is not included in traditional statistical sources. There is, however, one source of data which gives information on injuries incurred by fish harvesters, the Alaska Fishermen's Fund.

The Alaska Fishermen's Fund was established in 1951 to provide for treatment and care of Alaska's licensed commercial fishermen who are injured or become ill due to commercial fishing in Alaska. The total maximum allowance for any one injury or disablement cannot exceed $2,500. No payments are made on expenses incurred over one year after the date of initial allowance.

Money to support the fund comes from 60% of each commercial fishermen's license fee. To be eligible for coverage, the injury or illness must directly relate to commercial fishing activities and the injury or illness must have occurred in Alaska or in Alaskan waters. Covered expenses include medical and hospitalization costs, pharmaceuticals, and some transportation costs. There is no death benefit for survivors of fishermen who die while fishing in Alaska.

Up to 25,000 people participate in fish harvesting during a year in Alaska with annual average employment of around 8,000. During state fiscal year 1986, the Fishermen's Fund office received 3,011 claims. Approximately one-third of the claims were filed by nonresident fishermen. During fiscal year 1986 the average benefit paid was $362.29.

The available injury characteristic information from the Fishermen's Fund shows that 32% of fish harvester injuries are sprains. This is a lower ratio than the average for all other industries. The second leading injury for fish harvesters was "cuts, lacerations, abrasions, and punctures" which accounting for 19% of the total.

Conclusion

The seafood industry offers job opportunities for the unskilled worker although the work is seasonal, low paying, and difficult. For individuals interested in job opportunities in seafood processing the place to start looking is the Alaska Department of Labor's Job Service offices. A joint effort between the processors and the Job Service offices has been underway to place as many Alaska residents as possible in seafood processing jobs. To find a job in the seafood harvesting end of the business is more difficult. Personal contacts and an individual effort offer the best chance to land a position as a crew member of a fishing boat.

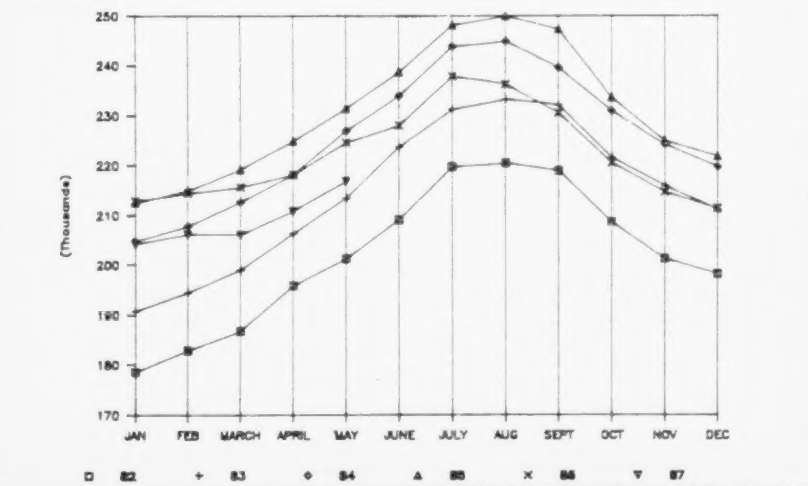
Alaska's Employment Scene

By Greg Huff

Although Alaska's economy continues to suffer from the 1986 collapse of world oil prices, employment opportunities increased in May as fishing, tourism, and other seasonal industries began their summer recovery. Nonagricultural wage and salary employment increased 6,000 jobs in May from April (Table 1) but was well below May 1985.

The largest increase in employment was in manufacturing; with 1,800 of the 2,000 increase in manufacturing jobs occurring in the seafood processing sector as the fishing industry began to gear up for another summer season. With the increased activity, the average hourly and average weekly earnings fell as the number of lower paid summer jobs increased in the industry (Table 8).

Figure 1
Alaska Employment 1982-1987



Additional gains in manufacturing employment were predominately in the lumber and paper products sector. Average weekly hours in the lumber and paper products industry increased over-the-month as the logging crews worked more hours with the longer summer days. The average hours worked per week increased from 47.3 to 52.7 with average weekly earnings increasing proportionately.

Signs that Alaska's tourist season was getting underway were the Substantial increases in air and ground passenger transportation employment, hotel/motel employment, and retail trade jobs, particularly eating and drinking establishments. The addition of temporary part-time help is revealed in the hours and earnings data for the trade and transportation industries, as the average hours worked per week in those industries declined.

Employment in construction expanded by 1,500 in May and appears to be responsible for much of the four-tenths of a percentage point drop in the statewide unemployment rate from April's 11.5% rate to 11.1% in May. The number of weeks claimed by former construction workers fell almost 25% in May compared to April according to unemployment insurance weeks claimed data. Although more construction workers went to work in May, the average hours worked did not change significantly from April.

Year-to-Year Comparison of Employment

Aside from seasonal increases in employment the Alaska economy does not present a wide variety of opportunities for the job seeker. Employment levels were depressed in nearly all industries from the previous year. Total employment is down 3.4% or 7,700 jobs below May 1986. When comparing 1987's employment to previous years (Figure 1) employment, 1987 was not only below 1986 levels but below the levels of May 1984.

The poor performance of Alaska's economy in 1987 is primarily a result of last year's collapse of world crude oil prices. Although Alaska's economy was likely to have a mild recession in 1986 the rapid and severe decline in oil prices from February through July of 1986 turned a mild downturn into the worst economic recession in Alaska's 27 years of statehood. The shock rippled through the economy, first hitting the oil and gas industry and exacerbating the ills of an already weak construction sector. The support sectors to these industries were next to feel the pinch and by mid-1986 government employment began to decline.

By May 1987 construction and mining industry employment losses had moderated (Figure 2), while job losses in state and local government and the secondary industries (those industries providing goods and services such as retail trade or banking) have gained momentum and supplied most of the employment declines over the year.

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

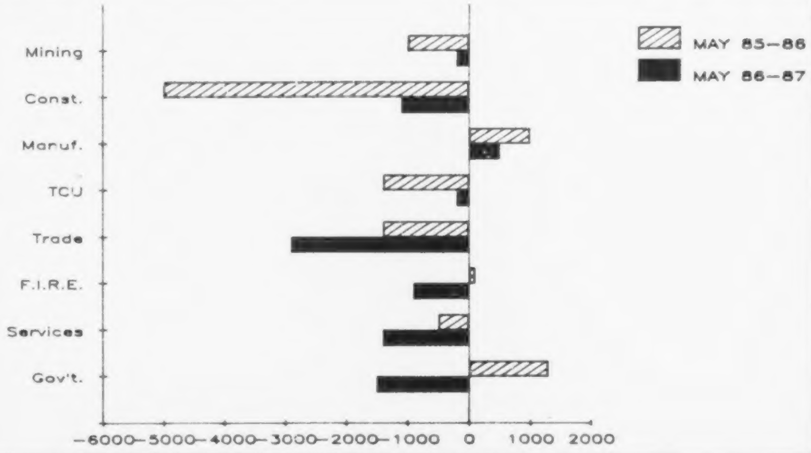
				Changes From:	
	p/ 5/87	r/ 4/87	5/86	4/87	5/36
Nonag. Wage & Salary	216,900	210,900	224,600	6,000	-7,700
Mining	8,300	8,400	8,500	-100	-200
Construction	11,900	10,400	13,000	1,500	-1,100
Manufacturing	13,600	11,600	13,100	2,000	500
Food & Kindred Prod.	7,500	5,700	7,100	1,800	400
Lumber & Paper Prod.	3,000	2,900	2,800	100	200
All Other Mfg.	3,100	3,000	3,200	100	-100
Trans. Comm. & Utilities	18,000	17,200	18,200	800	-200
Trucking & Whseing.	2,000	1,900	2,400	100	-400
Water Transportation	1,100	1,000	1,200	100	-100
Air Transportation	5,600	5,400	5,400	200	200
Other Trans. Comm. & Utilities	9,300	8,900	9,200	400	100
Trade	41,800	40,800	44,700	1,000	-2,900
Wholesale	7,500	7,400	8,300	100	-800
Retail	34,300	33,400	36,400	900	-2,100
Gen. Mer. & Apparel	5,000	4,800	5,100	200	100
Food Stores	5,900	5,900	5,900	0	0
Eating & Drinking Pl.	12,900	12,300	13,700	600	-800
Other Retail Trade	10,500	10,400	11,700	100	-1,200
Finance-Ins. & R.E.	11,900	12,100	12,800	-200	-900
Services & Misc.	42,700	42,100	44,100	600	-1,400
Government	68,700	68,300	70,200	400	-1,500
Federal	18,500	18,200	18,000	300	500
State	19,300	19,700	20,900	-400	-1,600
Local	30,900	30,400	31,300	500	-400

Prepared in cooperation with the U.S. Bureau of Labor Statistics.
Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

Figure 2
Employment Loss by Industry
May 1985 to May 1986 and May 1986 to May 1987



With world oil prices nearing $20 a barrel the downward momentum appears to have abated and confidence in the economy appears to have improved (according to recent business attitude surveys by Price Waterhouse and the Anchorage Chamber of Commerce). The downward momentum may begin again depending upon the degree of layoffs in state and local government and overall levels of state spending. Late summer employment statistics (early fall for school data) will reveal the extent of layoffs and the impact of less government spending.

Table 2
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/	r/		Changes From:	
	5/87	**4/87**	**5/86**	**4/87**	**5/86**
Nonag. Wage & Salary	104,550	102,800	109,900	1,750	-5,350
Mining	3,350	3,300	3,550	50	-200
Construction	6,650	5,900	7,150	750	-500
Manufacturing	2,550	2,350	2,600	200	-50
Food & Kindred Prod.	700	550	750	150	-50
Other Mfg.	1,850	1,800	1,850	50	0
Trans. Comm. & Utilities	9,150	8,950	9,500	200	-350
Trucking & Whseing.	1,350	1,350	1,500	0	-150
Water Transportation	300	250	350	50	-50
Air Transportation	3,000	2,950	2,950	50	50
Other Trans. Comm. & Utiiities	4,500	4,400	4,700	100	-200
Trade	24,400	24,250	26,300	150	-1,900
Wholesale	5,500	5,500	6,250	0	-750
Retail	18,900	18,750	20,050	150	-1,150
Gen. Merchandise	1,800	1,750	1,800	50	0
Food Stores	3,000	2,950	2,900	50	100
Eating & Drinking Pl.	7,450	7,550	8,050	-100	-600
Other Retail Trade	6,650	6,500	7,300	150	-650
Finance-Ins. & R.E.	7,800	7,850	8,450	-50	-650
Services & Misc.	23,900	23,750	25,300	150	-1,400
Government	26,750	26,450	27,050	300	-300
Federal	10,450	10,300	10,000	150	450
State	6,950	7,150	7,500	-200	-550
Local	9,350	9,000	9,550	350	-200

Table 3
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/	r/		Changes From:	
	5/87	**4/87**	**5/86**	**4/87**	**5/86**
Nonag. Wage & Salary	111,400	109,300	116,750	2,100	-5,350
Mining	3,350	3,300	3,550	50	-200
Construction	7,050	6,200	7,550	850	-500
Manufacturing	2,600	2,400	2,650	200	-50
Trans. Comm. & Utilities	10,000	9,650	10,150	350	-150
Trade	26,000	25,800	27,850	200	-1,850
Finance-Ins. & R.E.	8,350	8,350	8,950	0	-600
Services & Misc.	24,950	24,800	26,500	150	-1,550
Government	29,100	28,800	29,550	300	-450

What Can Pick Up the Slack

There have been many questions about the ability of other sectors to make up the jobs lost due to falling oil prices. There are no short term answers and oil will remain the primary ingredient causing employment levels to fluctuate up or down in the foreseeable future. This is evident when examining the primary sectors that drive the economy and create jobs by producing goods and services for export from Alaska.

Employment in Alaska can be attributed to a handful of primary sources. Besides petroleum, the primary sources include the federal government (both military and civilian), seafood harvesting and processing, timber, tourism and mineral mining. According to recent studies the federal government accounts for approximately 38% of all primary jobs in Alaska, petroleum accounts for 45% (oil industry and state revenues) and 17% stems from fishing, tourism and other basic industries, including non-petroleum mining./1

Currently the federal government employment and expenditures and the fishing industry have been growing moderately, the timber and paper industry has recovered and is experiencing employment gains, and mining activity is beginning to show signs of a turnaround, however, even with these positive influences in the economy the negative impacts of less oil and gas employment and expenditures and less state revenues outweigh these positive influences.

Geographic Breakdown

Every region of the state had an improvement in their unemployment rate, with the exception of the North-

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1/ *The Alaska Economy Where We Are and How We Got there*, Gunnar Knapp and Steve Colt, Institute of Social and Economic Research, ISER Working Paper 85.8, 1985.

ern Region (Table 9), although there was not always a corresponding improvement in the number of unemployed. An increase in the number of employed is largely responsible for the improved unemployment rate.

The Southeast Region had the lowest unemployment rate in May at 9.2% while the Interior Region had the highest rate at 15.0%. The Gulf Coast Region had the sharpest over-the-year drop, while the Northern Region had the greatest yearly increase in the unemployment rate. Although most regions experienced employment gains and lower unemployment rates in May compared to April the picture is varied in the year-ago comparisons.

Increases in seafood processing employment were the principal ingredients accounting for the unemployment rate to decline in the Gulf Coast and Southwest Regions. The growing number of seafood processing jobs improved the rate for the Gulf Coast Region, however, large declines in state and local government and construction employment are keeping the Gulf Coast economy in the doldrums.

In the Southeast Region a combination of gains in seafood processing and lumber and paper products contributed to a seasonal increase in employment and decline in the unemployment rate, however, losses in government offset many of the gains. State and local government declines are perhaps the most significant in the Southeast Region and Fairbanks because total government accounts for 35% of total employment in Fairbanks and 41% in the Southeast Region. In Fairbanks the trade and construction industries contributed to the seasonal increase in employment.

Declines in federal government employment in Southeast have added to the employment losses in state and local government whereas federal government has been a positive force for Fairbanks although positive impacts of the deployment of the light infantry division have just begun.

Anchorage experienced a modest increase in employment but the number of unemployed and the unemployment rate saw little improvement. In Anchorage the construction industry had the largest over-the-month increases in employment, although no industry had robust growth. A few industries, particularly eating and drinking places, that would normally increase in employment did not participate in the

Table 4
Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

				Changes From:	
	p/ 5/87	r/ 4/87	5/86	4/87	5/86
Nonag. Wage & Salary	26,750	25,900	28,150	850	-1,400
Mining	100	100	100	0	0
Construction	1,400	1,100	1,650	300	-250
Manufacturing	600	600	600	0	0
Trans. Comm. & Utilities	2,700	2,500	2,700	200	0
Trucking & Whseing.	400	350	400	50	0
Air Transportation	950	950	950	0	0
Other Trans. Comm. & Utilities	1,350	1,200	1,350	150	0
Trade	5,800	5,350	6,150	450	-350
Wholesale	900	850	950	50	-50
Retail	4,900	4,500	5,200	400	-300
Gen. Mer. & Apparel	500	500	500	0	0
Food Stores	750	750	750	0	0
Other Retail Trade	3,650	3,250	3,950	400	-300
Finance-Ins. & R.E.	1,000	1,000	1,150	0	-150
Services & Misc.	5,700	5,650	5,850	50	-150
Government	9,450	9,600	9,950	-150	-500
Federal	3,000	2,950	2,950	50	50
State	3,700	3,950	4,000	-250	-300
Local	2,750	2,700	3,000	50	-250

Table 5
Nonagricultural Wage and Salary Employment
By Place of Work
Interior

				Changes From:	
	p/ 5/87	r/ 4/87	5/86	4/87	5/86
Nonag. Wage & Salary	31,100	29,850	32,500	1,250	-1,400
Mining	250	200	250	50	0
Construction	1,550	1,150	1,750	400	-200
Manufacturing	650	600	600	50	50
Trans. Comm. & Utilities	3,050	2,850	3,050	200	0
Trade	6,150	5,650	6,600	500	-450
Finance-Ins. & R.E.	1,100	1,100	1,200	0	-100
Services & Misc.	6,250	6,200	6,400	50	-150
Government	12,100	12,100	12,650	0	-550

Table 6
Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

				Changes From:	
	p/ 5/87	r/ 4/87	5/86	4/87	5/86
Nonag. Wage & Salary	20,200	19,050	20,500	1,150	-300
Mining	850	850	950	0	-100
Construction	1,000	850	1,200	150	-200
Manufacturing	3,850	3,100	3,550	750	300
Food & Kindred Prod.	3,250	2,500	2,950	750	300
All Other Mfg.	600	600	600	0	0
Trans. Comm. & Utilities	1,400	1,400	1,400	0	0
Trade	3,500	3,250	3,600	250	-100
Wholesale	600	500	600	100	0
Retail	2,900	2,750	3,000	150	-100
Finance-Ins. & R.E.	650	650	700	0	-50
Services & Misc.	3,450	3,350	3,350	100	100
Government	5,500	5,600	5,750	-100	-250
Federal	650	600	600	50	50
State	1,550	1,500	1,650	50	-100
Local	3,300	3,500	3,500	-200	-200

Table 7
Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

				Changes From:	
	p/ 5/87	r/ 4/87	5/86	4/87	5/86
Nonag. Wage & Salary	28,400	27,650	29,800	750	-1,400
Construction	1,050	900	1,200	150	-150
Manufacturing	3,900	3,600	3,950	300	-50
Food & Kindred Prod.	950	800	1,100	150	-150
Lumber & Paper Prod.	2,750	2,600	2,650	150	100
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	2,100	2,000	2,100	100	0
Trade	4,300	4,200	4,500	100	-200
Wholesale	350	350	300	0	50
Retail	3,950	3,850	4,200	100	-250
Finance-Ins. & R.E.	1,100	1,100	1,150	0	-50
Mining, Services & Misc.	4,400	4,300	4,550	100	-150
Government	11,550	11,550	12,350	0	-800
Federal	2,050	2,000	2,100	50	-50
State	5,200	5,200	5,700	0	-500
Local	4,300	4,350	4,550	-50	-250

Table 8
Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 5/87	R/ 4/87	5/86	P/ 5/87	R/ 4/87	5/86	P/ 5/87	R/ 4/87	5/86
Mining	1,157.68	1,170.88	1,141.06	49.2	49.3	50.4	23.53	23.75	22.64
Construction	961.60	963.98	1,004.87	40.1	40.3	41.2	23.98	23.92	24.39
Manufacturing	499.40	506.32	479.97	44.0	42.8	40.3	11.35	11.83	11.91
Food & Kindred Prod	300.94	339.83	285.84	41.0	41.8	36.0	7.34	8.13	7.94
Lumber & Paper Prod	824.23	741.66	818.89	52.7	47.3	52.9	15.64	15.68	15.48
Trans. Comm. & Util.	539.55	539.96	552.09	34.9	35.5	35.3	15.46	15.21	15.64
Trade	375.02	399.24	376.53	34.0	35.3	33.0	11.03	11.31	11.41
Wholesale	514.94	565.11	492.51	38.4	39.0	36.7	13.41	14.49	13.42
Retail	327.28	342.38	334.12	32.5	34.0	31.7	10.07	10.07	10.54
Finance-Ins. & R.E	385.07	398.16	387.82	32.8	33.6	33.9	11.74	11.85	11.44

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and non-supervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

seasonal upswing in employment. This is because local spending declined more than the early seasonal increase in tourist spending.

In Anchorage federal government employment increases have offset a number of losses in the local and state government sectors. The federal government increases in employment are a result of the arrival of AWACs and new F-15s at Elmendorf and increases in the Postal Service employment. Overall negative influences continue to outweigh the pluses in the Anchorage economy. Employment in the support sectors (like trade, finance, and services) fell rapidly in May accounting for the bulk of the employment losses.

The ailing oil industry was also the cause for the Northern regions unemployment rate to increase over last year's rate, as oil companies have reduced their exploration and development efforts because of low oil prices.

Conclusion

Although employment opportunities improved in May, it was in response to seasonal factors. Fishing, timber, construction, and tourism related industries all had an increase in employment over-the-month. While providing temporary relief, these increases should not be interpreted as a bottoming out of Alaska's current recession. Employment is down 3.4% from May 1986 and down 6.5% from May 1985. With anticipated cuts in state expenditures Alaska's employment will continue its decline by late summer.

The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Table 9
Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 5/87	R/ 4/87	5/86	P/ 5/87	R/ 4/87	5/86	P/ 5/87	R/ 4/87	5/86	P/ 5/87	R/ 4/87	5/86
Alaska Statewide	258,108	253,429	263,007	28,570	29,031	28,880	11.1	11.5	11.0	229,538	224,398	234,127
Anch-MatSu Region	136,615	134,778	140,007	13,569	13,725	13,937	9.9	10.2	10.0	123,046	121,053	126,070
Anchorage Borough	120,322	119,049	123,479	10,604	10,637	10,800	8.8	8.9	8.7	109,718	108,412	112,679
MatSu Borough	16,293	15,729	16,528	2,965	3,088	3,137	18.2	19.6	19.0	13,328	12,641	13,391
Gulf Coast Region	27,985	27,105	28,459	3,609	3,971	4,082	12.9	14.7	14.3	24,376	23,134	24,377
Kenai Peninsula Bor	17,320	16,908	17,737	2,776	3,105	3,192	16.0	18.4	18.0	14,544	13,803	14,545
Kodiak Island Bor	6,482	6,096	6,623	408	331	548	6.3	5.4	8.3	6,074	5,765	6,075
Valdez-Cordova	4,183	4,101	4,099	425	535	342	10.2	13.0	8.3	3,758	3,566	3,757
Interior Region	40,109	38,896	40,647	6,034	5,973	5,819	15.0	15.4	14.3	34,075	32,923	34,828
Fairbanks North Star Br	34,512	33,452	35,239	4,925	4,865	4,998	14.3	14.5	14.2	29,587	28,587	30,241
Southeast Fairbanks	2,372	2,318	2,377	385	399	347	16.2	17.2	14.6	1,987	1,919	2,030
Yukon-Koyukuk	3,225	3,126	3,031	724	709	474	22.4	22.7	15.6	2,501	2,417	2,557
Northern Region	7,999	8,049	7,834	1,097	946	923	13.7	11.8	11.8	6,902	7,103	6,911
Nome	3,115	3,133	3,090	493	435	465	15.8	13.9	15.0	2,622	2,698	2,625
North Slope Borough	2,745	2,769	2,696	205	155	153	7.5	5.6	5.7	2,540	2,614	2,543
Northwest Arctic Bor	2,139	2,147	2,048	399	356	305	18.7	16.6	14.9	1,740	1,791	1,743
Southeast Region	33,405	32,806	34,345	3,083	3,224	3,158	9.2	9.8	9.2	30,322	29,582	31,187
Haines Borough	922	904	936	103	105	94	11.2	11.6	10.0	819	799	842
Juneau Borough	14,488	14,172	15,052	1,049	1,062	1,229	7.2	7.5	8.2	13,439	13,110	13,823
Ketchikan Gateway Bor	6,771	6,651	6,977	663	692	695	9.8	10.4	10.0	6,108	5,959	6,282
Pr. of Wales-Outer Ktch	2,420	2,394	2,447	351	375	319	14.5	15.7	13.0	2,069	2,019	2,128
Sitka Borough	3,957	3,850	4,038	345	326	323	8.7	8.5	8.0	3,612	3,524	3,715
Skagway-Yakutat-Ang	1,490	1,505	1,561	193	239	227	13.0	15.9	14.5	1,297	1,266	1,334
Wrangell-Petersburg	3,357	3,330	3,334	379	425	271	11.3	12.8	8.1	2,978	2,905	3,063
Southwest Region	11,995	11,795	11,715	1,178	1,192	961	9.8	10.1	8.2	10,817	10,603	10,754
Aleutian Islands	3,020	2,965	2,964	131	133	92	4.3	4.5	3.1	2,889	2,832	2,872
Bethel	4,853	4,728	4,727	560	520	459	11.5	11.0	9.7	4,293	4,208	4,268
Bristol Bay Borough	444	450	439	32	46	29	7.2	10.2	6.6	412	404	410
Dillingham	2,146	2,121	2,051	233	246	149	10.9	11.6	7.3	1,913	1,875	1,902
Wade Hampton	1,532	1,531	1,534	222	247	232	14.5	16.1	15.1	1,310	1,284	1,302

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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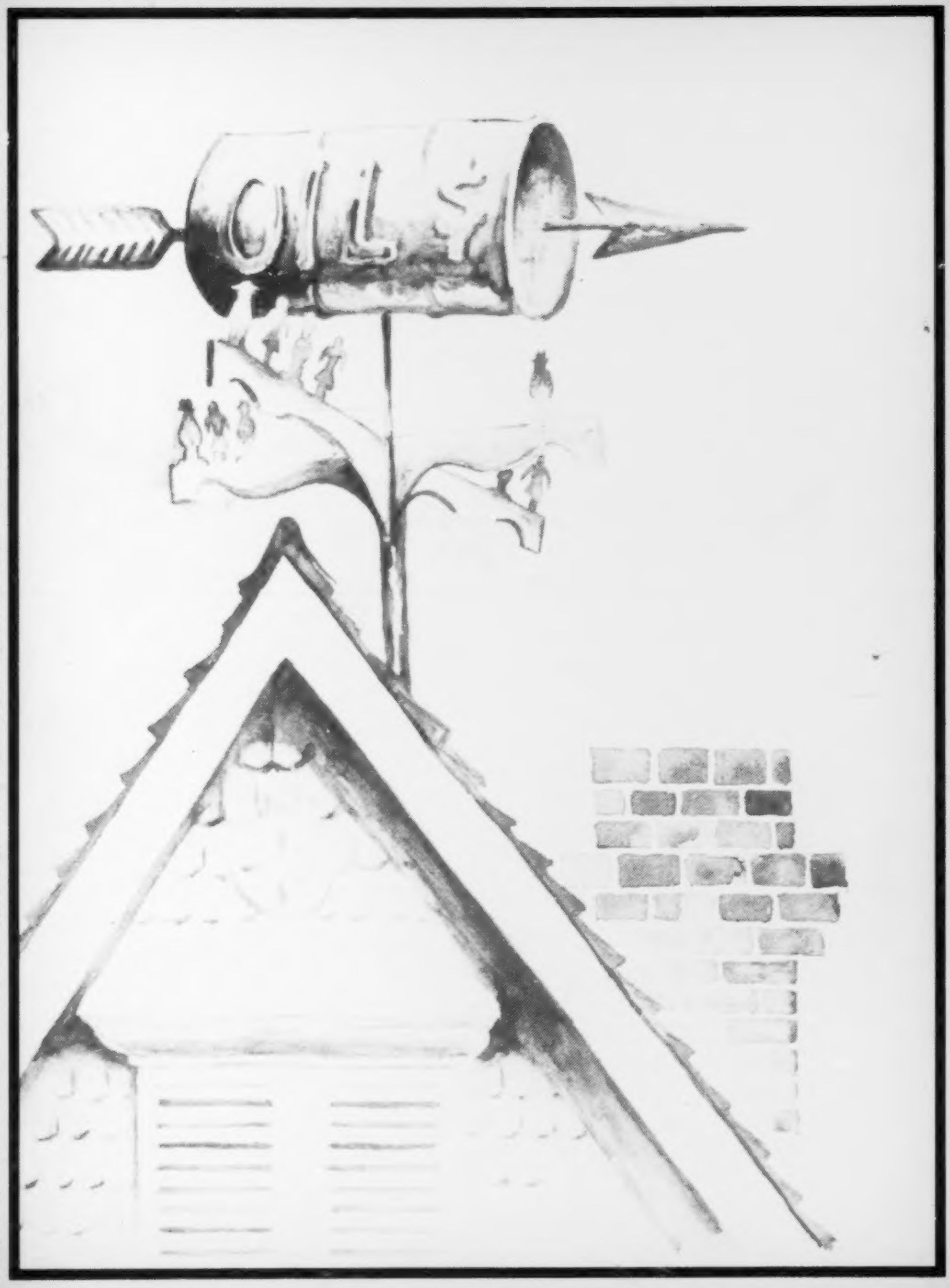

State Government Employment 1979-1987

Economic Impacts of Alaska's State Budget

Alaska State Spending—How High and Why?

Alaska State Government Employment Profile

Alaska's Employment Scene

Alaska Economic Trends

Steve Cowper, Governor, State of Alaska

Jim Sampson, Commissioner
Department of Labor

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Administrative Services

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Edward Eboch, Ph.D., Editor

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Economic Impacts of Alaska's State Budget

By Edward Eboch

Alaska's economy has been rocked by employment losses caused by plummeting oil prices. The oil industry reduced exploration and development efforts, resulting in a drop in their work force and associated construction employment. With less revenue available from petroleum, state government has reduced its operating and capital budgets the past several years. Now anticipation is centered on the impact of the most recent cuts in the Fiscal Year 1988 (FY88) budget.

Table 1
State of Alaska
Appropriations Totals
($ Millions)

	FY79	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY 88 (Preliminary)
Operating Agencies (Auth.) 1/										
Unrestricted General Funds	$851.7	$959.6	$1,364.3	$1,706.2	$1,897.8	$1,958.0	$2,110.5	$2,116.5	$1,844.1	$1,764.6
Other Funds	297.3	349.4	393.5	476.8	539.9	479.4	575.2	672.0	666.8	677.0
Total Operating Funds	1,149.0	1,309.0	1,757.8	2,183.0	2,437.7	2,437.4	2,685.7	2,788.5	2,510.9	2,441.6
Debt Service 2/										
Unrestr. Gen. Fund (G.O. Bond)	59.8	75.2	97.4	102.4	143.6	178.6	169.5	163.3	155.0	148.0
Other Funds (Int. Airport R.F.)	1.9	1.9	2.6	1.8	2.0	2.0	5.6	5.6	10.2	8.4
Total Debt Service	61.7	77.1	100.0	104.2	145.6	180.6	175.1	168.9	165.2	156.4
Capital (Auth.) 3/										
Unrestricted General Funds	171.0	92.0	565.2	1,164.9	470.1	778.4	1,241.9	471.4	337.6	100.7
Other Funds	338.4	81.7	414.6	72.4	239.7	398.5	192.1	431.7	438.3	255.3
Total Capital Funds	509.4	173.7	979.8	1,237.3	709.8	1,176.9	1,434.0	903.1	775.9	356.0
Loan Programs (Auth.)										
Unrestricted General Funds	14.0	33.5	560.1	471.8	337.0	171.9	140.0	80.4	61.0	63.6
Other Funds	0.0	0.0	0.7	1.0	1.0	20.4	0.4	0.0	6.5	10.9
Total Loan Funds	14.0	33.5	560.8	472.8	338.0	192.3	140.4	80.4	67.5	74.5
Total										
Unrestricted General Funds	1,096.5	1,160.3	2,587.0	3,445.3	2,848.5	2,086.9	3,661.9	2,831.6	2,397.7	2,076.9
Other Funds	637.4	433.0	811.4	552.0	782.6	900.3	773.3	1,109.3	1,121.8	951.6
Total Funds	1,733.9	1,593.3	3,398.4	3,997.3	3,631.1	3,987.2	4,435.2	3,940.9	3,519.5	3,028.5
Extraordinary Items										
Unrestricted General Funds	0.0	0.0	2,309.5	1,167.0	708.3	300.0	510.0	138.6	0.0	250.0
Other Funds	0.0	0.0	0.0	0.0	41.0	198.9	155.1	403.8	544.5	436.2
Total Extraordinary Items	0.0	0.0	2,309.5	1,167.0	749.3	498.9	665.1	542.4	544.5	686.2
Total										
Unrestricted General Funds	1,096.5	1,160.3	4,896.5	4,612.3	3,556.8	3,386.9	4,171.9	2,970.2	2,397.7	2,326.9
Other Funds	637.4	433.0	811.4	552.0	823.6	1,099.2	928.9	1,513.1	1,666.3	1,387.8
Grand Total	$1,733.9	$1,593.3	$5,707.9	$5,164.3	$4,380.4	$4,486.1	$5,100.8	$4,483.3	$4,064.0	$3,714.7

1/ Agency "adjusted base" totals plus one-time, special and supplemental operating appropriations.
This category includes Local School Debt Retirement (Education, Municipal Assistance and Revenue Sharing (DCRA).
FY79 and FY80 figures are estimated from Executive Budget Books.
FY87 revised authorizations plus supplemental appropriations.
FY88 preliminary post-veto totals from 1987 session include fiscal notes, special operating appropriations and in HB 29 (pre-veto) operating appropriations; because the outcome is unknown, FY88 totals exclude the labor negotiations increment (sec. 22 of Ch. 95, SLA 87).

2/ FY79-84: Actual payments for G.O. debt retirement allocated to agencies. FY85-88: Debt service authorizations.

3/ Session totals; OMB has adjusted some figures to reflect repeals and reappropriations and the definition of capital projects enacted in AS 37.07.120(4) (Ch. 34, SLA 83).

Source: State of Alaska, Office of Management and Budget, Division of Policy.

Table 2
Alaska State Government
FY88 Comprehensive Operating Summary of Agency Funding
(000's)

Preliminary Totals

Department	Unrestricted General Funds	Other Funds	Total Funds
Governor	$ 15,062.1	$ 2,285.4	$ 17,347.5
Administration	146,425.2	44,869.3	191,294.5
Law	24,000.7	6,030.9	30,031.6
Revenue	21,495.9	27,284.5	48,780.4
Education	585,181.1	83,706.6	668,887.7
Health & Social Services	226,687.7	130,055.1	356,742.8
Labor	8,295.9	39,439.5	47,735.4
Commerce & Economic Development	34,705.3	23,798.2	58,503.5
Military & Veterans Affairs	10,729.2	5,165.0	15,894.2
Natural Resources	36,791.2	14,209.0	51,000.2
Fish & game	35,849.0	31,002.0	66,851.0
Public Safety	62,750.2	4,319.0	67,069.2
Transportation & Public Facilities	143,401.9	115,360.0	258,761.9
Environmental Conservation	11,234.8	4,766.3	16,001.1
Community & Regional Affairs	123,697.8	23,025.7	146,723.5
Corrections	75,224.3	4,501.7	79,726.0
University of Alaska	137,590.7	116,919.3	254,510.0
Alaska Court System	37,861.2	0.0	37,861.2
Legislature	27,607.3	228.8	27,836.1
Grand Total Operating	$1,764,591.5	$676,966.3	$2,441,557.8

Source: State of Alaska, Office of Management and Budget, Division of Budget Review.

For every $100 million drop in state spending, an average of 2,000 jobs are lost to the Alaska economy.

The good news is that the FY88 state budget is better than the one used in making the economic forecast in April's issue of *Alaska Economic Trends.* The bad news is that there is still a reduction in state spending so additional employment losses are anticipated.

With Alaska's state government FY88 budget (for the period 7/1/87-6/30/88) approved the preliminary impacts of budget changes are now available. While it is impossible to give a detailed breakdown of the state's budgets an overview of the changes that affect the state and local communities is possible.

Table 1 gives an historical perspective of Alaska's budgets while Table 2 gives the operating budget by agency. The major change the past several years has been less funding for capital projects, loan programs, and extraordinary items.

The other funds category in the operating and capital budgets are primarily federal funds and dedicated fees, such as university fees and tuition, revolving loan funds, and state corporation receipts (Alaska Housing Finance Corporation) which continue to grow over time. Extraordinary items include appropriations for permanent fund dividend payments, special appropriations to the Permanent Fund, legal settlements, and other special appropriations. Extraordinary items, with the exception of the permanent fund dividend appropriation, have had little impact on economic growth of Alaska.

Statewide Impacts

While the entire economic impact of the state budget cannot be determined some general conclusions can be made. For example, changes in funding and anticipated reductions in employment by department can help determine the approximate loss in employment statewide.

Besides direct state employment, jobs are created through expenditures for capital projects; educational funding, municipal revenue sharing, and capital grants to municipalities; programs contracted to the private sector; and state expenditures for materials, supplies, and travel.

From work done by Scott Goldsmith[1] with the Institute of Social and Economic Research (ISER), for every $100 million drop in state spending, an average of 2,000 jobs are lost to the Alaska economy. The number of jobs lost depends on whether the reductions come from the operating budget or the capital budget, as well as on the programs cut or the type of capital projects undertaken. This suggests a loss of approximately 6,000 jobs statewide, in both the public and private sector, as a result of the change in the state's combined FY88 capital and operating budget from the FY87 budget.

While it is possible to make estimates of the direct loss in state government employment from all budget cuts, employment lost due to a change in capital expenditures will depend on the type of projects cut. The changes in the operating and capital budgets are anticipated to reduce permanent full time employment by 818 while increasing permanent part time employees by 131 (Table 3). The net effect is a loss of approximately 800 full time equivalent employees. Estimates of the multiplier for the in-

Table 3
Alaska State Government
Positions by Department

Department	FY86 Authorized	FY87 Authorized	FY88 Conference Committee	Change FY86 to FY87	Change FY87 to FY88
Office of the Governor					
Full-time	212	203	196	-9	-7
Part-time	8	8	7	0	-1
Administration					
Full-time	1,143	1,092	1,008	-51	-84
Part-time	102	89	98	-13	9
Law					
Full-time	361	365	315	4	-50
Part-time	7	8	7	1	-1
Revenue					
Full-time	415	395	391	-20	-4
Part-time	27	27	25	0	-2
Education					
Full-time	474	443	387	-31	-56
Part-time	103	102	103	-1	1
Health and Social Services					
Full-time	1,650	1,692	1,630	42	-62
Part-time	93	88	130	-5	42
Labor					
Full-time	602	622	592	20	-30
Part-time	179	174	202	-5	28
Commerce and Economic Development					
Full-time	447	412	365	-35	-47
Part-time	16	22	19	6	-3
Military and Veterans' Affairs					
Full-time	99	97	95	-2	-2
Part-time	8	10	8	2	-2
Natural Resources					
Full-time	839	749	568	-90	-181
Part-time	266	261	333	-5	72
Fish and Game					
Full-time	916	744	714	-172	-30
Part-time	890	911	868	21	-43

(continued)

direct and induced effect of the loss in direct state employment suggest an additional 800 or more jobs will be lost in the economy.

The reductions in the capital budget will result in an additional loss of employment of approximately 4,000 according to ISER.[2] For every $100 million in state spending for capital projects ISER estimates that 500 to 600 direct jobs are created in the economy. By inference a reduction of $100 million in state capital appropriations means a loss of 500-600 direct jobs. The indirect and induced effect approximately doubles the number of jobs lost although there is some evidence that the multiplier effect is somewhat less in down turns than in growth periods.

In addition, there will be jobs lost in local communities due to reduced funding to communities. The combined effects of the change in the state's budget, regardless of the method use, suggests a loss of approximately 6,000 jobs in the economy over the next year due to changes in state spending. This loss in employment will occur regardless of the price of oil since the budgets are unlikely to change even if revenues exceed current appropriated funds.

Local Impacts

Based on the April revised budget an estimate of the loss in direct state employment by election district is presented in Table 4. Although these numbers exceed the final budgeted numbers they do give an order of magnitude of state employment reduction by election district. While the impacts of reductions in state employment are relatively easy to measure the impacts of changes in capital appropriations depend on a number of factors.

Much of the previous disparity among election districts, on a per capita ba-

Table 3 (continued)
Alaska State Government
Positions by Department

Departmernt	FY86 Authorized	FY87 Authorized	FY88 Conference Committee	Change FY86 to FY87	Change FY87 to FY88
Public Safety					
Full-time	873	857	751	-16	-106
Part-time	58	75	79	17	4
Transportation and Public Facilities					
Full-time	2,940	2,838	2,783 1/	-102	-55
Part-time	980	988	1,015 1/	8	27
Environmental Conservation					
Full-time	245	247	237	2	-10
Part-time	11	22	23	11	1
Community and Regional Affairs					
Full-time	199	194	174	-5	-20
Part-time	4	2	3	-2	1
Corrections					
Full-time	986	1,040	1,150	54	110
Part-time	0	0	0	0	0
University of Alaska					
Full-time	3,561	3,477	3,312	-84	-165
Part-time	313	296	287	-17	-9
Alaska Court System					
Full-time	598	606	610	8	4
Part-time	34	36	36	2	0
Legislature					
Full-time	347	326	303	-21	-23
Part-time	36	41	48	5	7
TOTAL					
Full-time	16,907	16,399	15,581	-508	-818
Part-time	3,135	3,160	3,291	25	131

1/ Adjusted by Sec. 18, Ch. 95, SLA 87: Full Time - Add 116; Part Time - Delete 49

Source: State of Alaska, Office of Management and Budget, Division of Budget Review.

Kenai, Cook Inlet and the Fairbanks and Interior Highways election districts had some of the largest single projects.

sis, can be attributed to geographical cost differences which increased capital appropriations to rural districts. Now, however, after several years of massive state spending on capital projects, federal funds have reemerged as the dominant component of capital budgets. The location of federal projects has widened per capita disparity of capital dollars, especially considering the cost differences between districts, usually to the benefit of urban districts.

The dominance of federal project dollars explains why District 5 (Kenai, Cook Inlet) had an increase in capital appropriations and District 17 (Interior Highways) and District 18 (Fairbanks) suffered relatively small losses in capital appropriations (Table 5). The Sterling highway project represents over 87% of the funds for District 5. The largest single capital appropriation, $27 million was for the Fairbanks-Geist Road extension. The Fairbanks and Interior Highways election districts also had some of the other largest single projects—usually highway improvements.

Capital appropriations by election district for FY88 represents only 72% of total capital appropriations. The other 28% is referred to as multi-district appropriations although occasionally the community that is the beneficiary can be identified.[3] The multi-district capital appropriations range from weatherization and energy conservation, community block grants, general fund match for federal aid highways, engineering studies, marine highway maintenance, to

Table 4
April FY88 Revised Budget 1/
Employment Changes by Election District

Election District	Permanent Positions	FY87 Auth	FY88 Revised	Net Change	% Change
District 1 (Ketchikan, Wrangell, Petersburg)	Full Time	310	299	-11	-3.5
	Part Time	174	181	7	4.0
District 2 (Inside Passage, Cordova)	Full Time	51	40	-11	-21.6
	Part Time	77	77	0	0.0
District 3 (Baranof, Chichagof)	Full Time	191	172	-19	-9.9
	Part Time	70	75	5	7.1
District 4 (Juneau)	Full Time	3,341	3,029	-312	-9.3
	Part Time	364	403	39	10.7
District 5 (Kenai, Cook Inlet)	Full Time	395	364	-31	-7.8
	Part Time	172	171	-1	-0.6
District 6 (North Kenai, South Coast)	Full Time	359	537	178	49.6
	Part Time	167	170	3	1.8
District 7-15 (Anchorage)	Full Time	5,443	4,977	-466	-8.6
	Part Time	651	732	81	12.4
District 16 (Matanuska-Susitna)	Full Time	615	555	-60	-9.8
	Part Time	130	149	19	14.6
District 17 (Interior Highways)	Full Time	175	153	-22	-12.6
	Part Time	188	183	-5	-2.7
District 18-21 (Fairbanks)	Full Time	3,186	2,988	-198	-6.2
	Part Time	465	532	67	14.4
District 22 (North Slope, Kotzebue)	Full Time	97	71	-26	-26.8
	Part Time	34	22	-12	-35.3
District 23 (Norton Sound)	Full Time	175	158	-17	-9.7
	Part Time	69	84	15	21.7
District 24 (West Interior Rivers)	Full Time	86	71	-15	-17.4
	Part Time	71	80	9	12.7
District 25 (Lower Kuskokwim)	Full Time	233	213	-20	-8.6
	Part Time	50	52	2	4.0
District 26 (Bristol Bay, Aleutian Islands)	Full Time	76	70	-6	-7.9
	Part Time	128	133	5	3.9
District 27 (Kodiak, East Alaska Peninsula)	Full Time	176	158	-18	-10.2
	Part Time	126	130	4	3.2
Multi-District	Full Time	36	32	-4	-11.1
	Part Time	0	0	0	0.0
TOTAL	Full Time	14,945	13,887	-1,058	-7.1
	Part Time	2,936	3,174	238	8.1

1/ The change in approved appropriations will increase the number of positions by election districts. Contact the State of Alaska, Office of Management and Budget, Division of Budget Review for the most current estimates of FY88 positions by election districts.

This Report does not include Marine Highway vessel crews, or employees of the Court System or the Legislature.

Source: State of Alaska, Office of Management and Budget, Division of Budget Review.

other projects and studies. While it is impossible to determine the exact communities effected by reductions in multi-district funds the nature of the projects suggest the urban areas will take the brunt of the losses.

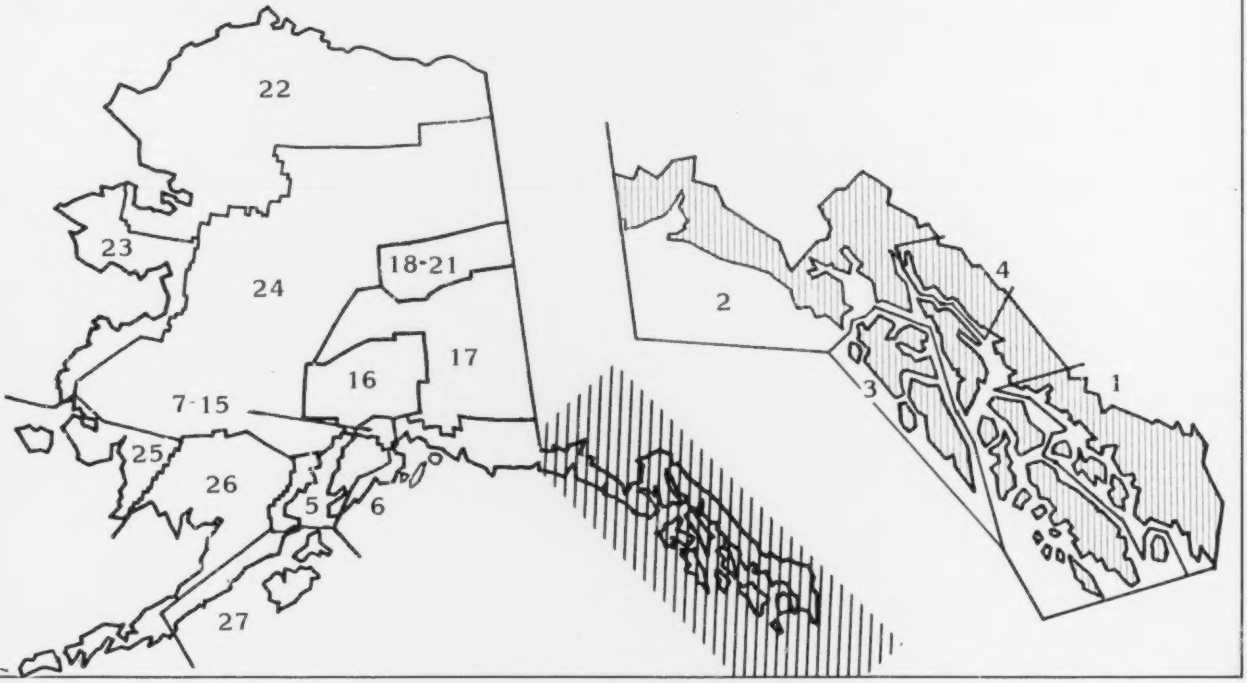
At first blush it appears that the state's educational support through the Alaska Public School Foundation Funding Program (Table 6) has increased in FY88 over FY87. School districts are now required to pick up the cost of their retirement systems which means that total state support in FY88 is approximately equal to FY87 support. While total support has not changed appreciably the change in the funding formula will ef-

Table 5
Alaska State Government
Capital Appropriations by Election District
Fiscal Years 1987 & 1988

	FY87 Total Funds	FY88 Total Funds	Percent Change
District 1 (Ketchikan, Wrangell, Petersburg)	$ 17,184.9	$ 9,306.2	-46
District 2 (Inside Passage, Cordova)	32,368.6	11,007.7	-66
District 3 (Baranof, Chichagof)	9,026.7	1,154.0	-87
District 4 (Juneau)	15,528.0	7,687.6	-50
District 5 (Kenai, Cook Inlet)	11,371.3	14,216.1	25
District 6 (North Kenai, South Coast)	14,842.8	1,233.0	-92
District 7-15 (Anchorage)	221,351.4	65,866.7	-70
District 16 (Matanuska-Susitna)	23,202.2	12,443.0	-46
District 17 (Interior Highways)	33,979.8	32,478.8	-04
District 18-21 (Fairbanks)	80,393.2	57,700.8	-28
District 22 (North Slope, Kotzebue)	20,834.7	6,681.7	-68
District 23 (Norton Sound)	35,065.9	8,412.8	-76
District 24 (West Interior Rivers)	29,710.9	5,734.1	-81
District 25 (Lower Kuskokwim)	13,441.4	5,372.0	-60
District 26 (Bristol Bay, Aleutian Islands)	31,350.0	11,438.2	-61
District 27 (Kodiak, East Alaska Peninsula)	13,340.4	4,015.2	-70
Multi-District	172,915.2	98,089.7	-43
TOTAL	$775,907.4	$352,837.6	-55

This table shows capital appropriations of the 1986 Legislature by election district. This list includes money for State-owned and operated facilities, as well as grants to municipalities and other local entities. Projects located in more than one election district are listed as multi-district.

Source: FY87 data is from: State of Alaska, 1986 Alaska State Appropriations Digest, Office of Management and Budget, Division of Policy. FY88 data is from: State of Alaska, Office of Management and Budget, Division of Budget Review.



fect individual communities differently.

Operating expenditures for education vary considerably on a per capita basis among election districts as a result of economies of scale enjoyed by the larger urban school districts. The new foundation funding formula has resulted in a new distribution of funds by community. Some communities have benefited by this change while others have had their funding reduced. The larger school districts will be able to adjust to this reduced funding support easier. They are also

Table 6
State of Alaska
Department of Education
Public School Foundation Program
Fiscal Year 1987 and 1988

School District	Revised/Final State Aid FY87 ($ Thousands)	FY88 Proposed State Aid ($ Thousands)	Percent Change
Adak	$ 1,923	$ 2,196	14
Alaska Gateway	3,628	4,349	20
Aleutian Region	1,241	1,351	9
Anchorage	116,111	119,766	3
Annette Island	1,409	1,128	-20
Bering Strait	10,300	11,098	8
Bristol Bay	1,851	1,439	-22
Chatham	2,101	2,045	-3
Chugach	1,241	1,461	18
Copper River	3,529	4,491	27
Cordova	2,037	2,126	4
Craig	1,454	1,266	-13
Delta Greely	4,085	4,842	19
Dillingham	3,396	2,482	-27
Fairbanks	42,223	46,474	10
Galena	1,412	1,006	-29
Haines	1,939	1,952	1
Hoonah	1,445	1,342	-7
Hydaburg	829	975	18
Iditarod	4,537	4,115	-9
Juneau	14,416	13,969	-3
Kake	1,279	1,116	-0.13
Kashunamiut	1,337	1,448	8
Kenai	27,228	28,914	6
Ketchikan	7,379	8,262	12
King Cove	1,165	1,159	-1
Klawock	1,110	1,081	-3
Kodiak	11,197	12,429	11
Kuspuk	3,972	3,555	-10
Lake & Peninsula	4,375	4,327	-1
Lower Kuskokwim	21,252	26,032	22
Lower Yukon	7,608	9,626	27
Mat-Su	26,844	32,075	19
Nenana	1,090	1,653	52
Nome	5,098	4,478	-12
North Slope	8,298	6,663	-20
Northwest Arctic	11,011	12,620	15
Pelican	538	604	12
Petersburg	2,548	2,689	6
Pribilof	842	1,230	46
Railbelt	3,275	3,041	-7
Sand Point	852	1,037	22
Sitka	5,403	6,190	15
Skagway	627	839	34
Southeast Island	3,671	4,014	9
Southwest Region	4,010	4,640	16
St. Mary's	1,372	1,280	-7
Tanana	1,008	871	-14
Unalaska	1,111	1,020	-8
Valdez	3,110	2,545	-18
Wrangell	2,107	2,348	11
Yakutat	1,135	1,071	-6
Yukon Flats	4,600	4,988	8
Yukon-Koyukuk	5,786	5,404	-7
Yupiit	3,391	2,806	-17
Cent. Corresp. Study			
Totals	$406,736	$431,928	6

Note: Communities are now required to assume the cost of their retirement programs estimated at approximately $21 million.

Source: Alaska Department of Education.

more likely to be able to replace this loss of funds from local revenues.

The additional burden of having to pay for their own retirement system could cause problems among districts that suffered a loss in their foundation formula funding. Even among districts that gain funding the retirement system obligation could cause employment drops. Fortunately, major school construction is largely over so the loss of debt support should not impact communities that much.

State revenue sharing and municipal assistance data for individual communities will not be available for Fiscal Year 1988 until early 1989, however, it is possible to estimate the loss of state support by community. Both municipal assistance and revenue sharing have been reduced by approximately 15% (Table 7). Municipal assistance is based on population so each community (July 1987 population estimates will determine the FY88 funds) can expect to lose approximately 15% of their municipal assistance funds unless their population changed radically from the statewide average. The formula for state revenue sharing is more complicated and depends on local revenues, public roads, health facilities, as well as other factors.[4] As a result, smaller communities will have their funding reduced little or not at all. Since the majority of funds go to the larger communities, the loss in most communities state revenue share will be approximately 15% less than funding received in FY87.

Anchorage will have the greatest loss in state jobs, and although state government employment represents a much smaller percent of its work force than other communities, the loss in capital appropriations and local assistance means that the state's largest community will suffer as a result of state cutbacks. Anchorage also is a regional center for many other communities of the state so that losses elsewhere in the state will impact Anchorage. As a conservative estimate Anchorage will lose 2,500 jobs as a result of the changes in the state budget, a more than 2% loss in employment.

Table 7
Alaska State Government
State Revenue Sharing/Municipal Assistance
Fiscal Year 1987 Final Report

City	Municipal Assistance	State Revenue Sharing	Total
Alakanuk	$ 60,249	$ 64,304	$ 124,553
Municipality of Anchorage	29,509,362	14,783,217	44,292,579
Anderson	78,119	34,612	112,731
Aniak	54,554	100,787	155,341
Barrow	328,617	25,003	353,620
Bethel	507,972	641,725	1,149,697
Bristol Bay Borough	139,878	108,796	248,674
Cordova	294,861	431,913	726,774
Craig	120,596	114,834	235,430
Delta Junction	148,840	61,867	210,707
Dillingham	240,437	249,671	490,108
Emmonak	66,583	60,102	126,685
Fairbanks	3,731,948	1,432,273	5,164,221
Fairbanks North Star Borough	5,156,701	2,880,920	8,037,621
Galena	105,797	114,531	220,328
Haines	126,938	169,587	296,525
Haines Borough	83,345	36,716	120,061
Homer	460,224	346,502	806,726
Hoonah	96,745	78,034	174,779
Hooper Bay	79,325	32,251	111,576
Houston	82,973	76,641	159,614
City and Borough of Juneau	3,281,454	4,419,607	7,701,061
Kake	68,325	32,179	100,504
Kenai	794,345	453,308	1,247,653
Kenai Peninsula Borough	2,939,051	2,985,799	5,924,850
Ketchikan	1,042,325	939,984	1,982,309
Ketchikan Gateway Borough	583,030	450,133	1,033,163
King Cove	56,519	66,757	123,276
Klawock	70,181	86,517	156,698
Kodiak	822,979	726,063	1,549,042
Kodiak Island Borough	621,255	655,178	1,276,433
Kotzebue	389,930	367,461	757,391
Mat-Su Borough	3,692,868	3,028,097	6,720,965
McGrath	53,865	60,461	114,326
Mountain Village	68,181	65,524	133,705
Nenana	67,210	113,208	180,418
Nome	436,981	670,596	1,107,577
Noorvik	52,612	79,988	132,600
North Pole	193,783	60,177	253,960
North Slope Borough	1,510,378	734,039	2,244,417
Nunapitchuk	36,466	104,741	141,207
Palmer	362,678	496,738	859,416
Petersburg	365,759	721,599	1,087,358
Saint Mary's	56,382	100,904	157,286
Saint Paul	59,438	123,833	183,271
Sand Point	92,599	82,541	175,140
Saxman	35,101	87,471	122,572
Seldovia	72,612	48,697	121,309
Seward	271,368	595,648	867,016
City and Borough of Sitka	945,929	732,306	1,678,235
Soldotna	459,306	370,719	830,025
Tanana	43,849	83,096	126,945
Tuluksak	31,945	100,039	131,984
Unalakleet	82,051	53,749	135,800
Unalaska	197,870	420,734	618,604
Valdez	733,414	482,375	1,215,789
Wasilla	448,456	135,289	583,745
Whittier	34,617	77,179	111,796
Wrangell	274,178	381,258	655,436
Yakutat	58,452	79,120	137,572
Metlakatla	171,819	17,262	189,081
Remainder of State	2,804,857	4,744,440	7,549,315
Total FY87	$65,858,500	$47,879,100	$113,737,600
Budget FY88	$56,084,400	$40,733,400	$96,857,800

Source: Alaska Department of Community and Regional Affairs, Division of Municipal and Regional Assistance.

Juneau will be hardest hit by the reduced budget. During FY84-FY86 34% of all jobs in Juneau were held by state workers. With state government as the major employer, the loss of approximately 300 direct jobs, a capital budget drop of $7.8 million, and a loss in educational funding, municipal assistance, and revenue sharing will be a serious blow to the Juneau economy. Using the multipliers developed above the cuts in state spending will result in a loss of approximately 700 jobs, more than 5% of its nonagricultural wage and salary work force. This follows a loss of over 6% in total employment to date.

Next to Juneau, Fairbanks had the largest percent of jobs held by state workers (17%). Fairbanks, however, fared well from the state budget. While it will lose nearly 200 state jobs its share of the capital budget and an increase in educational assistance means that Fairbanks has done better than average from the FY88 budget. Still, Fairbanks can expect a loss of approximately 600 jobs from state budget cuts, a 2% loss in employment.

Conclusion

Alaska's state budget is official and the results are better than anticipated, however, there will still be staff reductions, reduced capital expenditures, and less local assistance. Statewide a loss of over 6,000 jobs is anticipated from employment losses in state government, construction, local government, and the support industries as a result of the change in state spending.

The reduction in state jobs will impact Juneau the most. Anchorage will lose the most jobs but with a more diverse employment base the impact is not as severe as for most communities in the state. Because of past state support to local communities, especially capital expenditures, rural areas will be impacted more than the urban areas with the possible exception of Juneau.

The impacts on local communities as a result of reductions in state financial support varies. Over 50% of total FY86 municipal revenue was provided by the state. That was down in FY87 and was reduced further in the FY88 budget. While rural districts will fare better under municipal assistance and state revenue sharing and in some cases educational funding support they will lose a greater proportionate share of capital appropriations. As a result no community will escape being impacted by the FY88 budget.

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[1] Scott Goldsmith, How State Spending Reductions Affect Economic Activity, University of Alaska, Institute of Social and Economic Research, Working Paper 86.2, March 1986.

[2] The Fiscal Impact of Capital Spending in Alaska, University of Alaska, Institute of Social and Economic Research, December 1984.

[3] For a detailed list of capital projects by election district contact the Office of Management and Budget, Division of Budget Review.

[4] Contact the Department of Community and Regional Affairs for information about the Revenue Sharing Program.

Alaska State Spending—How High and Why?

By Gregg Erickson [1]

It has been widely recognized that per capita state spending is several times larger in Alaska than any other state. Some pundits say this shows that there is a lot of fat to be cut from the state budget. The statistics usually used to make that point have generally come from U.S. Census figures comparing spending among the states. The most recent Census data was released in October 1986, and relate to FY85. That means they cover the Alaska budget adopted in June of 1984. In Alaska, particularly in budget matters, change can come quickly. Whatever one may say about the status of state spending in 1984, things are different today, though spending remains high by national standards.

Current Spending Levels

Alaska's current budget calls for spending $2,076 million in FY88, the fiscal year that began on July 1, 1987.[2] That compares with $3,662 million three years earlier. (See Table 1 for details.) In per capita terms Alaska spending will be down 45 percent from its FY85 level. When adjusted for inflation the cuts from the prior year's spending have even been greater: down 27% in real per capita terms in the FY86 budget, down 16 percent in FY87, and down 14 percent in the budget just adopted for FY88. If the goal is to cut state spending, Alaska has clearly been making some progress.

In per capita terms Alaska spending will be down 45 percent from its FY85 level.

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[1] Gregg Erickson is a Senior Economist for the Division of Policy, Office of Management and Budget.

Notwithstanding these cuts, Alaska's state government will still be spending more per resident than any other state. On a per capita basis we expect Alaska's FY88 spending to be about 55 percent above the next highest state, and roughly twice as much as the average state spends per resident elsewhere in the nation.

Why Does Alaska Spend So Much?

There are at least five important reasons for the high levels of state spending in Alaska. Four of these reasons reflect "real" differences between Alaska and other states. In contrast, the first major factor is a statistical artifact of the way the question is usually asked—"How does Alaska state spending compare with other states?"

Table 1
State Spending in Alaska, Fiscal 1979-1988
(Unrestricted General Funds)

Fiscal Year	July 1 Alaska Population	July Anchorage CPI-U	Total Appropriations (millions)	Per Capita Total Appropriations	Real Per Capita Total Appropriations (1987 $)	Change From Prior Year In Real Per Capita Appropriations
1979	411,600	188.5	$1,082.5	$2,630	$4,057	N/A
1980	413,700	207.4	1,160.3	2,805	3,933	-3.1%
1981	419,700	228.4	2,587.0	6,164	7,848	99.6%
1982	435,200	246.1	3,445.3	7,917	9,355	19.2%
1983	460,837	263.6	2,848.5	6,181	6,819	-27.1%
1984	495,290	265.8	3,086.9	6,233	6,819	0.0%
1985	523,048	275.5	3,661.9	7,001	7,390	8.4%
1986	539,600	283.7	2,830.1	5,245	5,376	-27.3%
1987	542,151	286.3	2,397.1	4,423	4,492	-16.3%
1988	537,080	290.8	$2,076.9	$3,867	$3,867	-13.9%

Sources

Population: Alaska Department of Labor estimates for FY79-FY86, and "low series" projections for FY87 and 88.

CPI: US Department of Labor data except the July FY88 (CY87) datum, which is an OMB estimate. Note: Population and CPI data are reported for July 1 of the calendar year, adjusted here to July 1, of the following named fiscal year, i.e., July FY88 = July CY87.

Total Appropriations: Unrestricted general funds, including operating, G.O. debt, capital, and loans. Permanent fund deposits and dividend appropriations, 1981 personal income tax refunds, and other extraordinary items are excluded. FY87 figure does not reflect capital spending restrictions imposed and later removed.

Posing the question this way ignores wide differences in the way states allocate responsibilities between state and local levels. States that handle more functions at the state level tend to have higher per capita state spending rankings than states that handle more functions locally, even though taxpayers may be paying identical amounts for the identical level of public services. Most states, for example, have county and city jails, but in Alaska the state government operates most jails. Where local governments in Alaska do provide services, the state often covers a bigger share of the costs than other parts of the country.

The FY85 Census data shows Alaska's per capita payments to local governments to be three times as large as in the next most generous state (Wyoming), and six times as large as the average state. Alaska state assistance to local governments has not declined quite as rapidly as the remainder of state spending, but the cuts have still been deep: this fiscal year Alaska will spend $654 million on its four major local government assistance programs, down from $805 million in FY85, and accounting for 31 percent of FY88 spending.[3]

The biases in per capita state spending comparisons can be avoided by looking at Census data on combined state and local spending. For FY85, these show that Alaska (and its local governments) spent a little more than twice as much per resident as the next highest state, and four times as much as the U.S. average.

Although Alaska has now fallen back toward the rest of the states in combined state-local spending per resident, the state Office of Management and Budget projects that the state will retain the number one spot in the FY88 rankings. Asking the question so it pertains to state spending alone clearly makes Alaska look higher than it is, but it is equally clear that the impression of higher spending in Alaska is more than just a statistical artifact.

Four Real Reasons

The second reason for Alaska's high spending is more straightforward: state government in Alaska continues to do things that state (and local) governments usually don't do. Paying longevity bonuses, giving subsidized student loans, providing direct subsidies to electric power users (Alaska's Power Cost Equalization program), and subsidizing hydroelectric projects (such as Bradley Lake) are some examples.

With respect to capital projects generally, appropriations for FY88 are $101 million, down dramatically from the $1,242 million appropriated in FY85. The current level nevertheless remains more than most states authorize directly for capital projects. Alaska also tends to spend more per capita on services traditionally provided by state and local governments, some of which is explained by the state's demographic characteristics: Alaska has a relatively young population, requiring more educational spending per capita, more than offsetting potential savings from a smaller than average percentage of elderly.[4]

The third factor helping to explain the high level of government spending in Alaska has been the high wage scales in the public sector when compared with other states. In October 1985 the average pay of a noneducational employee in Alaska was 27 percent higher than the next highest state, and 63 percent above the national average. More recent comparisons are not available, but the average pay of a state employee (excluding benefits) has recently increased faster than inflation, from $34,281 in 1985 to $36,052 in 1986. Layoffs of state workers tend to affect those with less seniority, and thus disproportionately reduce the ranks of lower paid employees. This can raise average pay even in the absence of general increases in wage rates.

A fourth element in Alaska's high per capita state spending is the relatively high level of debt service in Alaska, a legacy of the state's relatively heavy borrowing in the 1970s and early 1980s. At the end of FY85, the state's per capita burden of tax supported debt was six times the national average. And as high as that is, it doesn't include the $95 million in local school debt that state government paid in FY85.

The final factor helping to explain Alaska's high level of spending is the dispersed population, harsh climate, and lack of infrastructure. These factors can still mean that it costs more to provide a given level of government services in Alaska than in other states. The Department of Law recently had a felony prosecution on the Pribilof Islands. The court couldn't obtain an unbiased jury on the Islands because everyone knew or was related to the parties involved, so the state ended up flying the victim, the defendant and a dozen witnesses across the Bering Sea to Unalaska, and putting them up there for a week in hotels. The provision of education, health, and other public services in rural areas of Alaska can often require these kinds of higher expenditures by the state.

Can State Spending Be Reduced?

Average spending per resident has responded over the years to changes in available revenue, and many believe this will hold true in the future as well. The pattern of higher than average spending, however, is not a recent development, but one that clearly preceded the inflated oil revenues of the early 1980s.

As Table 1 shows, real per capita state appropriations in Alaska—high as they are in comparison with other states—have already been cut 5% below the levels of FY79. Historical statistics on the number of state employees per 100,000 residents compiled by Office of Management and Budget from Alaska Department of Labor data show a remarkable stability, ranging from a low of 3,426 employees per 100,000 residents in 1978 to a high of 3,944 per 100,000 in 1981.[5] The 1987 level is expected to fall in the lower end of this range.

Alaskans obviously have the ability to overcome most of the factors that have led to higher spending here than in other states. The historical evidence suggests, however, that the pattern of higher spending may be more deeply ingrained and more difficult to change than commonly imagined.

[2] Dollar figures are unrestricted general funds.

[3] The FY88 figure includes the educational foundation program, local school debt reimbursement, municipal assistance, and revenue sharing. The figure for FY85 includes shared taxes, teachers retirement assistance and other small programs since discontinued or consolidated with the four major assistance vehicles.

[4] Permanent Fund dividends are also a kind of government spending, but they are not included in the figures used here or in those published by the U.S. Census. Including the dividend in Alaska spending would have increased the Census FY85 combined state-local spending per resident figure by 4.2 percent.

[5] Includes University of Alaska employees.

State Government Employment 1979-1987

By Greg Huff

Introduction

According to the latest data, an annual average 19,893 people were working for the State of Alaska in 1986, making it the single largest employer in Alaska. The state's payroll in 1986 averaged $58.2 million a month. Included in the employment count are general government operations, the University of Alaska system, and a collection of semi-autonomous state agencies such as the Alaska Railroad.

Employment Trends

1987 losses represent the largest losses ever sustained in state government in Alaska's history.

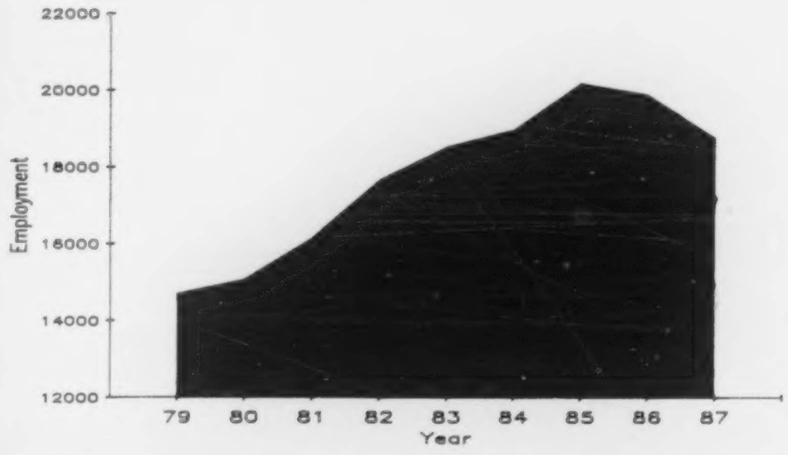
Between 1979 and 1986 state government employment grew 35%, a 4.3% annual rate (Figure 1). (This includes the Alaska Railroad transfer from federal to state ownership in 1985 and acquisition of Matanuska Maid dairy in 1986). This was greater than the 30% growth for the remainder of Alaska's employment, which grew at a 3.9% rate. Much of this difference in the rate of growth is accounted for by the acquisition of the Alaska Railroad.

From 1979-1985 Alaska's economy grew rapidly with population growing 32%. The decline in the economy, as a result of falling oil prices, began to impact the private sector in late 1985. As a result, after leading state government in employment growth through 1985, the private sector began to lose employment in 1986.

State government also lost employment in 1986 but less than the overall employment losses. In actual numbers, state employment was down 292 jobs in 1986 compared to 1985. The state government employment picture deteriorated in 1987 with employment falling another 1,514 jobs or 7.5% during the first half of the year (Table 1). These losses represent the largest losses ever sustained in state government in Alaska's history.

From 1979 to 1986 state government's share of Alaska's total wage and salary employment remained in the 9% range. The ratio of Alaska's population to state government employment also remained relatively unchanged at 27 to 1 (Table 2).

Figure 1
State Government Employment in Alaska, 1979–1987



Payroll and Wages

The state government's payroll has grown more rapidly than employment during this period. The state's payroll almost doubled from 1979 to 1986—from $359 million in 1979 to $699 million in 1986. In 1986 the state payroll represented 11.5% of Alaska's total payroll for that year. Some of the growth in payroll and wages can be attributed to a 39% increase in prices between 1979 and 1986.

State government's average monthly inflation adjusted earnings grew from $2,777 in 1979 to $2,887 in 1986, while the overall average monthly inflation adjusted earnings for Alaska declined from $2,420 in 1979 to $2,287 in 1986. State government average monthly earnings was 26% higher than the overall monthly earn-

Table 1
State Government Employment by Organization

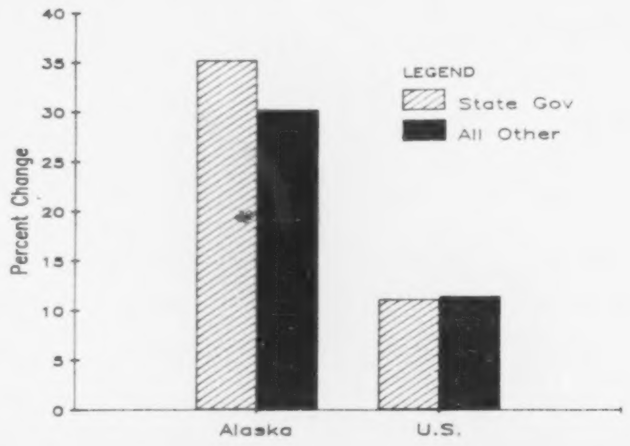
	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 79-86	Percent Share 1986
DAIRY	0	0	0	0	0	0	0	32	--	0.2
Matanuska Maid	0	0	0	0	0	0	0	32	--	0.2
ECONOMIC PROGRAMS	3,211	3,242	3,342	3,518	3,490	3,468	3,484	3,403	6.0	17.1
Alaska Power Authority	0	0	0	0	0	0	30	45	--	0.2
Department of Commerce	265	280	329	406	442	422	379	339	27.9	1.7
Department of Transportation	2,945	2,961	3,013	3,112	3,048	3,046	3,075	3,019	2.5	15.2
Other	1	1	0	0	0	0	0	0	--	0.0
EDUCATIONAL SERVICES	3,429	3,695	3,887	4,388	4,725	4,918	4,974	4,874	42.1	24.5
Geophysical Institute	167	159	167	182	173	157	160	136	-18.6	0.7
University of Alaska	3,133	3,359	3,663	4,206	4,552	4,761	4,814	4,738	51.2	23.8
Other	129	177	57	0	0	0	0	0	--	0.0
ENVIRONMENTAL QUALITY	1,916	1,954	2,407	2,605	2,705	2,644	2,761	2,706	41.2	13.6
Department of Comm/Reg Affairs	144	126	172	224	209	178	189	187	29.9	0.9
Department of Env Conservation	118	133	191	211	213	219	237	240	103.4	1.2
Department of Fish & Game	851	864	1,036	1,162	1,225	1,224	1,237	1,133	33.1	5.7
Department of Natural Resources	789	821	1,008	1,008	1,058	1,023	1,098	1,146	45.2	5.8
Other	14	10	0	0	0	0	0	0	--	0.0
EXECUTIVE, LEGISLATIVE & GEN. GOV'T	1,194	1,199	1,349	1,604	1,735	1,807	1,821	1,714	43.6	8.6
Department of Administration	675	673	833	1,026	1,132	1,167	1,215	1,170	73.3	5.9
Department of Legislative Affairs	185	224	293	322	376	395	372	318	71.9	1.6
Governor's Office	311	277	207	238	204	219	206	205	-34.1	1.0
Ombudsman's Office	14	17	16	18	23	26	28	21	50.0	0.1
Other	9	8	0	0	0	0	0	0	--	0.0
HUMAN RESOURCE PROGRAMS	2,973	2,940	3,097	3,231	3,107	2,823	2,929	2,974	0.0	14.9
Department of Education	409	418	456	488	499	511	532	528	29.1	2.7
Department of H&SS	1,753	1,781	1,931	2,077	1,933	1,622	1,664	1,673	-4.6	8.4
Department of Labor	630	589	612	583	623	650	681	695	10.3	3.5
SE Regional Resource Center	44	33	52	83	52	40	52	78	77.3	0.4
Other	137	119	46	0	0	0	0	0	--	0.0
INVESTMENT/SECURITY BROKERS	13	17	32	38	42	42	43	45	246.2	0.2
Alaska Housing Finance Corp.	12	16	32	38	42	42	43	45	275.0	0.2
Other	1	1	0	0	0	0	0	0	--	0.0
JUSTICE, PUBLIC ORDER & SAFETY	1,415	1,446	1,582	1,673	2,043	2,611	2,775	2,767	95.5	13.9
Court System	457	468	515	545	572	596	617	596	30.4	3.0
Department of Corrections	0	0	0	0	350	831	946	969	--	4.9
Department of Law	145	166	204	230	250	269	299	313	115.9	1.6
Department of Public Safety	794	794	862	898	871	915	913	889	12.0	4.5
Other	19	18	1	0	0	0	0	0	--	0.0
NATIONAL SECURITY	86	88	89	87	89	87	83	88	2.3	0.4
Department of Military Affairs	86	88	89	87	89	87	83	88	2.3	0.4
Other	0	0	0	0	0	0	0	0	0.0	0.0
OPERATORS OF APARTMENT BUILDINGS	118	117	125	124	140	144	159	158	33.9	0.8
Alaska State Housing Authority	118	117	125	124	140	144	159	158	33.9	0.8
PUBLIC FINANCE & TAXATION	347	383	411	402	463	438	456	439	26.5	2.2
Department of Legislative Audit	21	30	43	45	43	44	44	38	81.0	0.2
Department of Legislative Finance	42	46	47	35	38	37	45	50	19.0	0.3
Department of Revenue	277	305	321	322	382	357	367	351	26.7	1.8
Other	7	2	0	0	0	0	0	0	--	0.0
RAILROAD TRANSPORTATION	0	0	0	0	0	0	700	693	--	3.5
Alaska Railroad Corporation	0	0	0	0	0	0	700	693	--	3.5
TOTAL STATE GOVERNMENT	14,702	15,081	16,154	17,670	18,539	18,982	20,185	19,893	35.3	100.0

Table 2
State Government Employment by Census Area

	1980	1981	1982	1983	1984	1985	1986	Percent Change 80-86	Percent Share 1986	Population per State Employee 1980	Population per State Employee 1985
Aleutian Islands	66	64	73	70	71	78	72	9.1	0.4	118	116
Anchorage Borough	4,861	5,422	6,002	6,375	6,476	7,162	7,017	44.4	35.3	36	33
Bethel	184	210	235	254	237	262	260	41.3	1.3	60	49
Bristol Bay Borough	22	22	22	29	40	40	36	63.6	0.2	50	33
Dillingham	55	62	73	67	71	76	74	34.5	0.4	84	75
Fairbanks North Star Bor	3,177	3,352	3,565	3,757	3,820	4,009	3,914	23.2	19.7	17	18
Haines Borough	40	40	45	46	42	39	42	5.0	0.2	42	51
Juneau Borough	3,761	4,035	4,224	4,263	4,290	4,391	4,226	12.4	21.2	5	6
Kenai Peninsula Borough	524	574	636	694	773	830	815	55.5	4.1	48	47
Ketchikan Gateway Bor	425	438	522	553	580	537	551	29.6	2.8	27	23
Kodiak Island Borough	203	249	254	267	279	276	261	28.6	1.3	49	47
MatSu Borough	400	458	542	591	648	734	759	89.8	3.8	45	50
Nome	173	189	214	238	237	242	237	37.0	1.2	38	32
North Slope Borough	42	19	21	30	36	36	32	-23.8	0.2	100	153
Northwest Arctic Borough	58	51	59	81	86	92	90	55.2	0.5	171	141
Prince of Wales-Outer Ktch	15	20	24	25	26	30	29	93.3	0.1	255	167
Sitka Borough	201	220	229	235	253	249	278	38.3	1.4	39	33
Skagway-Yakutat-Angoon	23	25	29	33	36	36	37	60.9	0.2	151	102
Southeast Fairbanks	118	119	126	139	153	149	195	65.3	1.0	48	46
Valdez-Cordova	503	507	495	498	524	510	500	-0.6	2.5	17	18
Wade Hampton	12	16	15	18	20	24	20	66.7	0.1	389	233
Wrangell-Petersburg	71	79	94	106	102	108	105	47.9	0.5	87	63
Yukon-Koyukuk	147	150	171	170	182	229	218	48.3	1.1	54	40
Nonclassifiable	0	0	0	0	0	46	125	..	0.6	..	..
State Total	15,081	16,321	17,670	18,539	18,982	20,185	19,893	31.9	100.0	27	27

ings in 1986. Earnings are higher in state government primarily because employment is not seasonal, there are few part-time employees, and there is a larger proportion of professional and technical workers. Approximately 40% of state government is employed in professional, or technical occupations versus 22% for Alaska's total wage and salary employment.

Figure 2
Employment Growth Alaska and U.S. 1979–1987



The occupational makeup in state government helps explain why state government wages (in real terms) increased over the long term, whereas, the average monthly earnings in the overall economy fell. The proportion of higher paid professional and technical workers grew faster in state government than in Alaska's overall economy. The industries that grew the most from 1979 to 1986 (trade and services) tend to pay the least and have the highest proportion of unskilled, semi-skilled and part-time workers.

National Comparisons

From 1979 to 1986, the nation's total wage and salary employment grew more slowly than Alaska's, 11% versus 31%. State government employment followed a similar pattern; it increased 11% across the nation and 35% in Alaska (Figure 2).

In contrast, wage increases in Alaska

were similar to wage increases for state workers across the country. The most current data available show wages, on average, increased 41% (in nominal terms) nationally and 45% in Alaska from 1980 to 1985. In 1985, according to the U.S Bureau of the Census, Alaska's state average monthly wage was $3,004, while the national average state pay was $1,935 per month. California paid the next highest monthly wage, $2,556 per month, and Nebraska and Mississippi state workers had the lowest monthly pay, $1,426.

The state government work force in Alaska represents a larger share of total employment than it does nationally. On average, 4% of the wage and salary work force is employed in state government compared to 9% in Alaska. According to a 1985 U.S. Bureau of Census survey, Alaska employed 402 full time equivalent state employees per 10,000 population compared to 125 nationally. Hawaii follows Alaska with a ratio of 342. At the other end of the spectrum are Ohio and Illinois with 95 state workers per 10,000 population.

The sheer geographic size of our state is one reason for the large size of Alaska's state government. Alaska encompasses 570,833 square miles, 1/5 the size of the entire land mass of the contiguous 48 states. In addition, Alaska's state government is responsible for many tasks local governments normally undertake because large areas of Alaska do not fall within an organized governmental jurisdiction, including many public safety, social service, and judicial functions. Alaska's state government offers some unique services and operate businesses, which most other state governments do not do. Operating a railroad, a dairy and managing a housing finance corporation or the Permanent Fund Corporation are a few examples of the range of enterprises Alaska's state government is involved in that state governments normally play no role.

State Government by Department

The growth in state government was not equal for all departments. While each department or agency is organized by its primary function not all agencies fit neatly into a particular category. Nor do all agencies have eight year histories, for example the Alaska Railroad and the Department of Corrections.

The Alaska Railroad was acquired by the state from the federal government in 1985 and the Matanuska Maid dairy has been operated by the state since it filed bankruptcy in 1986. The Department of Corrections was created in 1983. Previously Corrections was a division in the Department of Health and Social Services. Because the change occurred during the second quarter of 1983, the annual average for the year shows only half the number of jobs involved in the move. Apart from these anomalies, the remainder of the data should be quite clear. Table 1 provides a detailed picture of state government employment over a period of eight years.

The single largest agency is the University of Alaska, which includes the university and community college systems. In 1986 the University system employed 24.5% of the state government's work force. In actual number of positions it grew the most between 1979 and 1986, adding 1,445 positions to its ranks; a 42% increase. During this same period University enrollment grew approximately 30%. In 1986 university employment fell 2%. Data for the first months of 1987 indicates that the University system has sustained another 5.7% decline in employment.

Though the University system experienced the largest increase in the number of employees, there were other agencies which grew faster during this period. Those agencies which doubled their employment or better from 1979 to 1986 were the Department of Law, the Department of Environmental Conservation, and the Alaska Housing Finance Corporation. The Department of Corrections employment grew 62%. (When the Department of Corrections was still a division, it employed approximately 600 employees in 1979). However, all of these agencies, with the exception of Corrections, are relatively small and therefore the overall impact is not dramatic.

Regional State Government Employment

State government is a major employer in many areas around the state. In Juneau state government accounted for one-third of all jobs in 1986. Juneau, Alaska's state capital, had the lowest population/state employee ratio among the state's 23 census areas during the early 1980s and was five times greater than the statewide average of 27 to 1 in 1986.

Juneau state employees accounted for 21% of state jobs in 1986. This work force primarily performs the task of administering most state government functions, from the Governors Office to the Commissioners offices and their departments. In addition, Juneau is home to the legislative branch which includes the Departments of Legislative Affairs, Legislative Audit, and Legislative Finance. Juneau also is regional headquarters for state government in the Southeast region of Alaska.

Besides Juneau, three other census areas—Fairbanks, Ketchikan and Valdez/Cordova—had a higher than average ratio of state employees to population. Fairbanks' high proportion of state workers stems from the University of Alaska-Fairbanks, the headquarters of the statewide university system, and Fairbanks' role as a regional center for many departments serving Alaska's Interior Region.

Ketchikan has a relatively large number of state workers because it is a regional headquarters for the Department of Transportation/Public Facilities' (DOTPF) Alaska Marine Highway System and it has a DOTPF operated airport. In Valdez the primary state government employers are the Department of Transportation (road maintenance and ferry) and Health and Social Services (which operates the Harbor View facility for the handicapped).

Although Juneau had the highest ratio of state employees to population, Anchorage had the largest state government work force. Over 7,000 or one-third of state government employment was located in Anchorage in 1986. Because of Anchorage's large private sector state government employment accounted for less than 7% of total employment in 1986.

The Anchorage/MatSu Region had the largest state government work force while the Northern Region had the smallest in 1986.

With Anchorage's large population base the Department of Health and Social Services has nearly half of its employment based in Anchorage. Anchorage also is regional headquarters for the Southcentral region and serves as headquarters for several semi-autonomous state agencies such as the Alaska Railroad and Alaska Housing Finance Corporation.

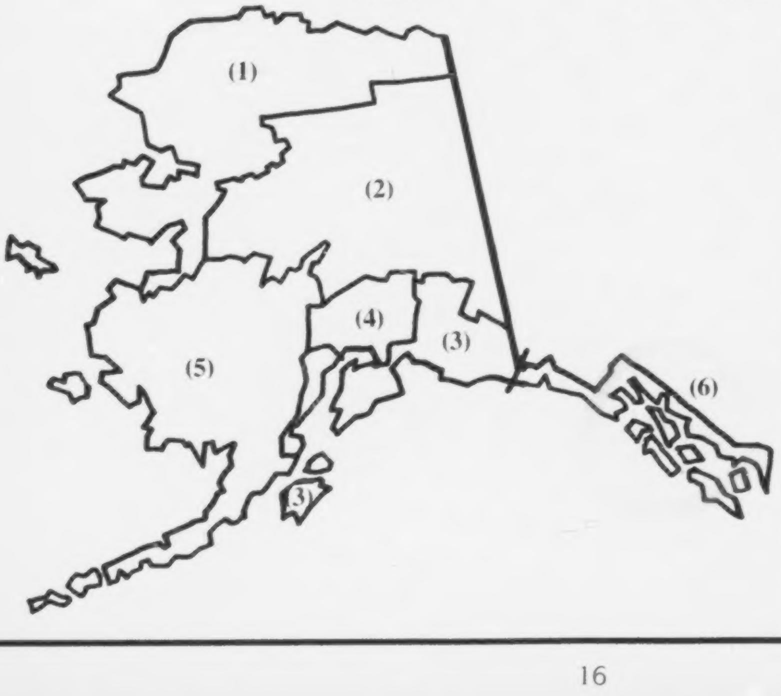
Anchorage is the headquarters of the statewide court system and the Third Judicial District. The Department of Law has its largest staff located in Anchorage. Anchorage is also home for the University of Alaska at Anchorage and Anchorage Community College, the two of which accounted for nearly 1,600 jobs in 1986.

When the state's work force located in Anchorage is combined with those in Juneau and Fairbanks three-quarters of state government employment is accounted for. The remainder is distributed among the other 20 census areas.

Figure 3

Employment by Labor Market Area 1979 – 1980

Area	1979	1986
(1) Northern	273	359
(2) Interior	3,442	4,327
(3) Gulf Coast	339	462
(4) Anchorage-MatSu	5,261	7,776
(5) Southwest	1,230	1,576
(6) Southeast	4,536	5,393



Combining the census areas into six labor market regions provides a convenient way to analyze the movement of state government by department (Table 3). The distribution of state government employment by labor market region for 1979 and 1986 is shown in the following map (figure 3). The map also provides the name of the census areas contained in each region.

The Anchorage/MatSu region had the largest state government work force while the Northern Region had the smallest in 1986. The same was true in 1979 for the Northern Region, but the Anchorage/MatSu share of the state work force has increased from 34% to 39%. All other regions had shares of state employment that remained fairly constant, except for the Southeast region which lost share.

The relative gain in state employment in Anchorage was largely due to the transfer of the Alaska Railroad in 1985 and acquisition of Matanuska Maid in 1986. These two additions accounted for over 600 jobs. These jobs combined with employment increases in the university and community college, Departments of Administration, Natural Resources and Health and Social Service/Department of Corrections to provide the bulk of the increases in state government jobs in the Anchorage/MatSu Region. (Note: The combined figures of Department of Corrections and Health and Social Services show employment growing from 871 in 1979 to 1268 in 1986.)

In contrast to the 45% growth in state government employment in the Anchorage/MatSu region, state government employment grew 17% in the Southeast Region. Over half the growth was in Juneau, but all areas within the region experienced some gains. Generally the larger the population base the larger the gains. The departments primarily responsible for employment growth in the region were Administration, Education, Fish and Game, and Legislative Affairs.

The university system and Departments of Natural Resources and

Table 3
State Government Employment by Region

	Northern		Interior		Southwest		Anch/MatSu		Gulf Coast		Southeast	
	1979	1986	1979	1986	1979	1986	1979	1986	1979	1986	1979	1986
DAIRY	0	0	0	0	0	0	0	32	0	0	0	0
Matanuska Maid	0	0	0	0	0	0	0	32	0	0	0	0
ECONOMIC PROGRAMS	63	71	501	613	43	40	926	1,047	373	309	1,304	1,323
Alaska Power Authority	0	0	0	0	0	0	0	42	0	1	0	3
Department of Commerce	1	0	14	17	1	1	122	174	3	3	124	143
Department of Transportation	62	71	487	596	42	39	804	831	370	305	1,180	1,177
EDUCATIONAL SERVICES	80	67	1,713	2,270	103	116	1,050	1,722	138	310	216	389
Geophysical Institute	0	0	166	136	0	0	1	0	0	0	0	0
University of Alaska	80	67	1,547	2,134	103	116	1,049	1,722	138	310	216	389
ENVIRONMENTAL QUALITY	23	38	340	482	45	95	743	1,049	213	297	538	745
Department of Comm/Reg Affairs	6	11	13	9	7	11	48	91	2	1	68	64
Department of Env. Conservation	0	2	11	40	0	2	18	67	9	18	80	111
Department of Fish & Game	17	24	73	119	38	80	235	257	172	211	316	442
Department of Natural Resources	0	1	243	314	0	2	442	634	30	67	74	128
EXECUTIVE, LEGISLATIVE & GEN. GOV'T	9	20	117	139	8	14	349	541	9	28	693	972
Department of Administration	1	9	79	112	1	7	226	470	2	12	366	560
Department of Legislative Affairs	3	6	7	8	3	5	21	22	3	16	148	261
Governor's Office	5	5	31	14	4	2	94	41	4	0	173	143
Ombudsman's Office	0	0	0	5	0	0	8	8	0	0	6	8
HUMAN RESOURCE PROGRAMS	66	41	266	289	71	71	1,085	1,107	288	322	1,060	1,144
Department of Education	1	1	9	7	0	2	83	87	70	75	246	356
Department of H&SS	56	35	186	207	66	64	781	789	195	207	469	371
Department of Labor	9	5	71	75	5	5	221	231	23	40	301	339
SE Regional Resource Center	0	0	0	0	0	0	0	0	0	0	44	78
INVESTMENT/SECURITY BROKERS	0	0	0	0	0	0	12	45	0	0	0	0
Alaska Housing Finance Corp.	0	0	0	0	0	0	12	45	0	0	0	0
JUSTICE, PUBLIC ORDER & SAFETY	32	114	273	412	53	112	627	1,330	144	273	267	526
Court System	17	28	93	102	21	19	244	339	32	41	50	67
Department of Corrections	0	39	0	113	0	41	0	499	0	103	0	174
Department of Law	1	11	22	41	2	9	69	155	4	8	47	89
Department of Public Safety	14	36	158	156	30	43	314	337	108	121	170	196
NATIONAL SECURITY	7	4	4	1	8	5	58	70	2	0	7	8
Department of Military Affairs	7	4	4	1	8	5	58	70	2	0	7	8
OPERATORS OF APARTMENT BUILDINGS	4	3	13	16	8	8	63	92	7	12	23	27
Alaska State Housing Authority	4	3	13	16	8	8	63	92	7	12	23	27
PUBLIC FINANCE & TAXATION	0	1	10	5	0	1	122	173	0	0	208	259
Department of Legislative Audit	0	0	0	0	0	0	6	10	0	0	15	28
Department of Legislative Finance	0	1	1	0	0	1	5	4	0	0	36	44
Department of Revenue	0	0	9	5	0	0	111	159	0	0	157	187
RAILROAD TRANSPORTATION	0	0	0	100	0	0	0	568	0	25	0	0
Alaska Railroad Corporation	0	0	0	100	0	0	0	568	0	25	0	0
OTHER	0	0	119	0	0	0	0	0	0	0	198	0
TOTAL STATE GOVERNMENT	284	359	3,356	4,327	339	462	5,035	7,776	1,174	1,576	4,514	5,393

Transportation/Public Facilities were the primary source of employment gains in the Interior Region. The Alaska Railroad transfer also increased state government employment by some 100 jobs. Fairbanks, the Interior's regional center, represents 90% of state government employment in the region.

In the Gulf Coast region the university system played a key role in the increase of state employment, doubling in size from 1979 to 1986. Only the Department of Corrections increased faster. From 1983 to 1986 employment in the Department of Corrections increased from 30 jobs to over 100. As the Seward prison comes on line employment with the Department of Corrections will more than double.

Because the Gulf Coast Region consists primarily of coastal/fishing communities the Department of Fish and Game has a large presence. In fact, over 18% of total statewide Fish and Game employment was located in the region in 1986, compared to less than

8% of total state government employment.

The remaining two regions, Northern and Southwest, are the most rural of Alaska's regions and have the smallest population base. Combined these regions in 1986 had 4% of the state work force in 1986, and 11% of the population, which gives them the highest ratio of population/state employee in the state. State government grew faster than population in these regions, which was not the case for the other regions of the state (if Alaska Railroad effects are taken out of Anchorage/MatSu). The Departments of Fish and Game, Corrections, and Public Safety were the big employment gainers for both regions.

Summary

State government accounts for 8% to 9% of total employment in Alaska, making it the largest employer in the state. In terms of the number of state workers to the total population it is the largest state government in the U.S. In 1985, the proportion was 402 state workers per 10,000 residents, 60 more than Hawaii and 150 more than Delaware the second and third greatest states in terms of ratio of the state work force to population.

Because the State of Alaska provides many services provided by local governments in other states it has been argued that combined state and local employment is a better measure for making inter-state comparisons. In doing so, Alaska's ratio of state and local government employment of 757 per 10,000 population is above the national average of 442, but several states are closer. For example, Texas has a ratio of 467 state and local government workers per 10,000 population and Wyoming has 635. Alaska's local government employment ratio of 355 per 10,000 people is only 12% greater than the U.S. average. New York has the highest with 411 local government workers per 10,000 people.

From 1979 to mid 1986 Alaska's state government employment expanded in response to an increase in the demand for services by a rapidly growing population and availability of substantial revenues. But the oil price plunge in 1986, and the accompanying loss in state revenues, sent state officials scrambling to cover the cost of operating the government.

Oil prices have since recovered, easing the downward movement of oil revenues, but as with the rest of the economy state government has had to contract the size of its work force. State government accounted for 18,300 jobs in June 1987, down 1,500 jobs since June 1986, a 7.5% decline. Although this trend is likely to continue through 1987, the declines are expected to be moderate in 1988.

Alaska State Government Employment Profile

By Dan Zobrist

"It was the best of times, it was the worst of times . . . it was the spring of hope, it was the winter of despair." These familiar words of Charles Dickens describing a long ago time of turbulent change is an apt appraisal of the view many Alaskans have of the current economy.

With the cost of goods and services in decline, there are bargains in housing and services that make these good times for some Alaskans, but for the unemployed, with years of lost equity in a home, and facing an economy that is no longer expanding, indeed, these may be the worst of times. One group of employed persons who may be enjoying both the best and the worst of times is Alaska's state government workers.

The state government workforce is going through trying times as layoffs and other changes occur. In both expanding and contracting economies there are opportunities as people decide to make a change in their situation. The same will be true in state government employment.

For those interested in working in state government there are many questions. How many and where are state jobs located in Alaska? What occupations are employed by the state? Do state jobs pay a higher wage than a comparable occupation in the private sector? How many nonresidents fill state jobs? Who can apply for any state job? These and other questions may be answered with a look at the statistics which follow.

Occupational Employment

A ten year review of past occupational staffing patterns of Alaska state government reveal that despite employment growth of over fifty percent during the period 1975-1985, the distribution of most of the major occupational categories has scarcely shifted. This relatively unchanging occupational pattern may be seen in Table 1.

A look at this unchanging occupational pattern reveals at least one fact—employment in government is comprised predominately of white collar occupations. Because state government is basically a service industry, it is not surprising that professional and technical workers represent the largest occupational category. Within this group, those employed as civil engineers, biological scientists, social workers, lawyers, and compliance officers/inspectors account for approximately 28 percent of the employment in this category.

Clerical workers are the second largest group. Predominant occupations in this category include typists (word processing equipment), general office clerks, secretaries, and bookkeeping, accounting, and auditing clerks. These occupations account for 55 percent of the category's employment.

Service workers rank third in aggregate occupational classifications in state government. The majority of service workers (54%) are made up by police patrol officers, police & detective supervisors, guards, and correction officers & jailers. The brief surge of service workers in 1982 is the result of the employment of 800 emergency firefighters to fight an outbreak of lighting fires that plagued the Interior Region during the spring of 1982.

Near the bottom of the list of occupational groups with any appreciable numbers of employment in state government are the crafts, operators, and laborers. The most noticeable specific occupations here are: operating engineers, maintenance repairers (general utility), paving/surfacing/tamping equipment operators, and mechanics.

Outlook

The Department of Labor has forecasted about 1,500 fewer jobs in state government over the next five years. The forecast makes no assumptions about specific areas in which cuts will occur. The decline in state revenues and the impacts of inflation are expected to be the chief causes of this projected downturn. Even with this decline, occupational staffing patterns are not expected to change.

Table 1
Occupational Staffing Pattern of Alaska State Government
(excludes education & hospitals)
1975-1985

Title	Percentage of Total Employment 1975	1979	1982	1985
Officers and Managers	15	18	14	11
Professional & Technical Workers	32	32	31	37
Clerical Workers	26	26	26	28
Service Workers	14	13	19	15
Crafts, Operators, Laborers	13	11	10	10
TOTAL	100%	100%	100%	100%

Source: Occupational Employment Statistics Program, Alaska Department of Labor.

State Government Recruitment

Within state government many jobs are open to continuous recruitment. Applications for approximately 200 job classes are generally always accepted. That doesn't mean a job is available. If the minimum qualifications are met, and any required tests are passed, then a jobseeker will join a list of eligible applicants competing for vacancies. Other job classes are opened for 30 to 60 day periods during some part of the year for special recruitment.

For individuals interested in working for Alaska state government, the Division of Personnel in the Department of Administration suggests these important sources of information that are available to the general public at any Division of Personnel office.

Jobs Book - This provides information, including required minimum qualifications, on approximately 225 job classes available for continuous recruitment.

The Department of Labor has forecasted about 1,500 fewer jobs in state government over the next five years.

Only 21% of the 33 comparable occupations surveyed showed state employee salaries higher than their private sector counterpart.

Recruitment Bulletins - Published on the first, and sometimes middle, of each month, they announce 30 to 60 day application periods for various job classes.

Department of Transportation and Public Facilities Job Classes - The Division of Personnel maintains a separate book for these job classes. Since the majority of these jobs are open for continuous recruitment they are listed in the Jobs Book.

Recruitment Schedules - Normally published every six months, it provides a glimpse of job classes coming available.

How to Apply Book - This informative booklet tells how to locate information about state jobs and gives step by step instructions on how to properly complete a State of Alaska Employment Application. The last few pages list telephone numbers and addresses of offices that may be contacted with additional questions.

Additional sources of information about state government employment in the Labor, Trades & Crafts, Office of the Governor and Lieutenant Governor, State Ferries, The Legislative Branch, the Judicial Branch, and the University of Alaska can be requested from the:

Division of Personnel
Recruitment Officer
P.O. Box C-0201
Juneau, Alaska 99811
465-4430

Now that it's known what types of occupations are typically employed by state government, and how to apply for them, the next question is: how much do they pay?

Wages

Responses to a July 1986 statewide occupational wage rate survey conducted by the research and analysis section of the Alaska Department of Labor were received from 1,291 employers from manufacturing, nonmanufacturing, trade and regulated industries. Information was collected on 253 occupations and 216 occupations had at least three responses. The survey data were then compared to wages for similar occupations in Alaska state government. All of the wage information represents gross dollar amount (before deductions) and excludes tips, overtime pay, room and board, bonuses, or benefits.

There were 71 occupations in the survey that were comparable between state government and nonunion employees in the private sector. Of these, entry level wages were higher in state government for 86 percent of the occupations. Among union employees in the private sector, which may be very comparable as most state workers are members of one of the various public employees unions, the comparisons are different.

Only 21% of the 33 comparable occupations surveyed showed state employee salaries higher than their private sector counterpart. Of this 21%, nearly half of these occupations are cashiers, bartenders, or waiters and waitresses where the value of tips (an important income source for these occupations) were not collected in the survey. Typically, state government employees in these occupations do not receive tips. For wage comparisons, it would seem, the overriding difference is not whether an occupation is employed by the state government, but whether it is organized.

State employees are unionized in many white collar occupations such as managers and officers, professional and technical, or clerical and administrative support. These occupations in the private sector are typically nonunion and the wage survey results reveal that they tend to earn less than their unionized counterpart in state government.

When you compare occupations in the production/construction or operating/maintenance/material handling areas the balance tips the other way. Overwhelmingly, by a sixteen to one margin in surveyed, comparable occupations, state employees earn less. There were no data collected on hours worked or total earnings and these are important points when making wage comparisons. More detailed information is available in the publication *Alaska Wage Rates 1986* available from the research & analysis section of the Alaska Department of Labor.

Location of State Jobs

Does an Alaskan have to live in Juneau, the state capital, to work in state government? Not really. Approximately one-third of state employees work out of the Anchorage, Palmer, Wasilla area. This percentage has grown from thirty to thirty-four percent during the ten year period 1975-85. The percentage of state workers working out of Fairbanks has remained stable at approximately 11 percent.

An analysis of the December 1986 payroll, which includes hospitals, showed that the Anchorage, Palmer, Wasilla area had an increase in percentage share to 37%. Fairbanks increased slightly to 12% and Juneau represented 23% of state government employment.

Residency

While it might be expected that all state workers would be Alaskan residents a few are not. A recent study of state payroll records was made by the research and analysis section of the Alaska Department of Labor. A crossmatch of state employee records with the permanent fund dividend data file reveals that 93% of all state employees are Alaska residents. The criteria used in defining resident is similar to the one used in the publication *Nonresidents Working in Alaska in 1985*, which is available from the Alaska Department of Labor, Research and Analysis Section.

This crossmatch provided information on the total number and percent of residents/nonresidents (1985) by bargaining unit and by state government agency. The data showed that over ninety-three percent of state workers are residents. The crossmatch also showed that there are organizations in state government where nonresident state employment is most concentrated.

Table 3 illustrates that the bargaining units with the highest percentage of nonresidents employed are those associated with the Alaska Marine Highway system (IBU-Marine Transport 15.8%, MEBA-Marine Engineers 76.2%, MMP-Masters, Mates and Pilots 51.9%) Table 4 shows that the state agency with both the highest percent and largest number of nonresident workers is the Department of Transportation and Public Facilities, which houses the Alaska Marine Highway System. The complete breakout is listed below.

Table 2
State Government Employment
by Location
(excludes hospitals & education)

Year	Anchorage	Share of State	Fairbanks	Share of State	Total
1975	2,780	30%	1,117	12%	9,170
1979	3,213	31%	1,132	11%	10,410
1982	4,223	32%	1,472	11%	13,390
1985	4,764	34%	1,544	11%	13,949

Source: Occupational Employment Statistics Program. Alaska Department of Labor

Table 3
Alaska State Government Resident and Nonresident Workers
By Bargaining Unit 1985

Bargaining Unit	Nonresident	Percent of Total	Resident	Percent of Total
IBU-Marine Transpor	101	15.8	540	84.2
MEBA-Marine Engineers	96	76.2	30	23.8
MMP-Masters,Mates, & Pilots	41	51.9	38	48.1
PSEA-Public Safety	10	2.6	369	97.4
Labor Relations	——	——	15	100.0
GGU-General Government	458	4.5	9,751	95.5
Confidential	8	3.1	246	96.9
Labor,Trade, & Craft	123	5.9	1,972	94.1
SU-Supervisors	20	1.7	1,143	98.3
Teachers	3	3.5	82	96.5
Exempt, Partial Ex	369	9.0	3,712	91.0
N/A	3	13.6	19	86.4
TOTAL	1,232	6.4	17,917	93.6

Source: Alaska Dept. of Labor, Research & Analysis, and Department of Administration.

The total number of employees is higher in Tables 3 and 4 than what was reported in Table 2 because of different definitions of employment. Information in tables 3 and 4 includes any individual that worked for the State of Alaska in 1985. The lower total employment number in Table 2 is the annual average number of workers. All of the individuals identified as residents had received a permanent fund dividend in either 1985 or 1986. (The University of Alaska is not included in this count.)

Over ninety three percent of state workers are residents: but how long have they been employed by the state. An analysis of the December 1986 payroll file show that 55.4% of state

Over ninety-three percent of state workers are residents.

Table 4
Alaska State Government Resident and Nonresident Workers By Department 1985

Department	Nonresident	Percent of Total	Resident	Percent of Total
Governor's Office	9	2.7	326	97.3
Administration	59	3.9	1,457	96.1
Law	32	6.9	431	93.1
Revenue	31	6.5	448	93.5
Education	38	5.2	691	94.8
Health & Soc Serv	77	3.8	1,960	96.2
Labor	18	2.3	775	97.7
Commerce	23	4.4	503	95.6
Military Affairs	1	0.9	114	99.1
Natural Resources	158	8.0	1,820	92.0
Fish and Game	134	7.5	1,654	92.5
Public Safety	101	7.6	1,221	92.4
Environmental Conservation	8	2.8	274	97.2
Corrections	24	2.2	1,073	97.8
Community & Regional Aff	3	1.4	213	98.6
Transportation & Pub Facil	405	10.7	3,363	89.3
Ombudsman	1	3.0	32	97.0
Legislative Affairs	35	5.1	658	94.9
Audit	2	3.3	59	96.7
Legislative Finance	1	2.0	50	98.0
Court System	72	8.3	795	91.7
Total	1,232	6.4	17,917	93.6

Source: Alaska Department of Labor, Research & Analysis, and Department of Administration.

Table 5
Alaska State Government
Number and Percentage of Workers by Gender in Higher Paying State Jobs /1 (excluding University of Alaska)
December 1986

Department	Gender	Number in Higher Paying Jobs	As a Percent Total Dept. Employment	As a Percent of Total Employment by Gender Males	Females
Governors Office	Male	47	25	84	——
	Female	80	42	——	59
Administration	Male	224	21	63	——
	Female	234	22	——	32
Law	Male	111	31	93	——
	Female	107	30	——	45
Revenue	Male	90	28	72	——
	Female	71	22	——	36
Education	Male	99	24	68	——
	Female	105	26	——	40
Health & Social Services	Male	333	21	62	——
	Female	547	35	——	53
Labor	Male	225	33	86	——
	Female	257	38	——	62
Commerce & Economic Development	Male	145	39	78	——
	Female	85	23	——	45
Military Affairs	Male	34	35	54	——
	Female	3	3	——	9
Natural Resources	Male	339	47	87	——
	Female	144	20	——	44

workers currently employed have a hire date of four years or less. This is consistent with the fact that state government expanded with the rest of the Alaska economy, and population, during the period 1982-83 when both oil prices and state revenues were at a peak.

Do Men Have Better Paying Jobs Than Women?

In a period of economic stagnation any job is a good job, but some jobs are better than others. Are women as likely as men to have a higher paying job in state government? Some information would suggest not.

The December 1986 state payroll file provided information on the pay ranges of the individual jobs held by women and men (Table 5). The balance between females and males having pay range 13 jobs (approximately $2300/month or higher) or laborers, trades and crafts jobs of pay range 53 or better ($16.46/hour or better) and Public Safety Officers Unit pay range 73 ($2599 and above) differs for most state agencies, but in every case the balance is one way: there is a higher percentage of male employees, as a percent of employment by gender, in these better paying jobs than there are females in those positions. As an example, in the Department of Law 93% of the males employed are in range 13 jobs or higher—compared to 45% of the fe-

In a period of economic stagnation any job is a good job.

Table 5 (continued)
Alaska State Government
Number and Percentage of Workers by Gender
in Higher Paying State Jobs /1
(excluding University of Alaska)
December 1986

Department	Gender	Number in Higher Paying Jobs	As a Percent Total Dept. Employment	As a Percent of Total Employment by Gender Males	Females
Fish & Game	Male	490	59	90	——
	Female	110	13	——	38
Public Safety	Male	420	56	92	——
	Female	55	7	——	19
Environmental Conservation	Male	124	56	93	——
	Female	39	18	——	45
Corrections	Male	657	67	97	——
	Female	208	21	——	67
Community & Regional Affairs	Male	61	35	90	——
	Female	55	32	——	53
Transportation & Public Facilities	Male	1,285	60	79	——
	Female	169	8	——	33
Ombudsman	Male	5	100	100	——
	Female	0	——	——	——
Legislative Affairs	Male	64	32	93	——
	Female	121	61	——	92
Legislative Audit	Male	13	33	100	——
	Female	26	66	——	100
Legislative Finance	Male	4	27	100	——
	Female	11	73	——	100
Court	Male	54	10	52	——
	Female	104	19	——	23

/1 Higher paying state jobs is defined as those jobs in pay range 13 (approximately $2,300 per month) or better in the general government confidential and supervisory bargaining units, wage group 53 (approximately $16.46 per hour) or better in the skills and crafts bargaining unit, and pay range 73 (approximately $2,599 per month) or higher in the regularly commissioned public safety officers unit.

Source: Alaska Department of Labor, Research and Analysis, and Department of Administration.

males employed. (The exception is those organizations where 100% of both genders are in these higher job classes such as Legislative Audit.)

The comparisons for each state department is listed in Table 5 (page 22 and 23). The table shows by gender and department the number employed at these higher pay ranges as a percentage of total department employment, and as a percentage of total employed of that gender. As an example, the Department of Administration shows that during December, 1986, 224 males were employed at a pay range of 13 or higher, that this represented 21% of total department employment, and 63% of the total males employed by that department. One note of caution: Providing information on gender is voluntary and as a result 14% of the observations are missing.

Summary

While Alaska is not falling to the depths that Charles Dickens describes in his eighteenth century tale of London and Paris during the French Revolution, it is experiencing a period of economic contraction. Jobs can be tough to find even for well qualified Alaskans. The information presented above is intended to provide helpful information about employment in Alaska state government to those Alaskans seeking employment with the state. Analysis on specific topics of wage rates, residency, and demographic characteristics showed that state workers are overwhelmingly Alaska residents, make wages that reflect their unionized status, and are predominantly male in the higher paying jobs. For additional information on any specific item mentioned the reader is encouraged to contact the research and analysis section of the Alaska Department of Labor.

Alaska's Employment Scene

By Edward Eboch

Despite all its problems there are a number of positive factors that have increase optimism about Alaska's economic future.

Nonagricultural wage and salary figures indicate that employers were more cautious about hiring personnel for the summer season than they normally are for June (Tables 1-7). As a result, Alaska's unemployment rate increased by two-tenths of a percentage point in June to 11.2% (Table 9).

An increasing unemployment rate in June is somewhat unusual but not an unprecedented occurrence. The number of unemployed workers increased by over 500 from May, largely due to the end of the school year. Completion of the school year brings young people into the labor force. Normally Alaska's industries increase their seasonal demand for employment more than enough to offset this influx of workers into the labor force. This summer, however, employers have been expanding employment more slowly as the economy continues its contraction in its nonseasonal industries.

Manufacturing continues to be the bright spot in Alaska's economy, with over-the-month and over-the-year increases in timber and seafood processing employment. The timber industry is showing employment growth in areas outside Southeast although from a small base. Other manufacturing; primarily newspapers, printing, and construction related manufacturing; has decreased over-the-year.

Reports of a shortage of employees for seafood processing plants was not evident in June by may appear in July and August when salmon runs drive up processing employment to 15,000. When canned stocks low as a result of successful promotional efforts by the Alaska Seafood Marketing Institute, processors are anxiously awaiting the arrival of this years salmon run. There is some concern that this years peak run may be small, especially in the Southeast, and will impact both the demand for employment and the price harvesters receive for fish. A serious shortage of workers in some areas could also impact fish prices and reduce spending in communities heavily dependent on this seasonal industry.

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	p/ 6/87	r/ 5/87	6/86	Changes From: 5/87	 6/86
Nonag. Wage & Salary	218,600	217,200	229,200	1,400	-10,600
Mining	8,200	8,300	8,600	-100	-400
Construction	13,300	12,000	14,900	1,300	-1,600
Manufacturing	14,800	13,700	14,600	1,100	200
Food & Kindred Prod.	8,500	7,500	8,200	1,000	300
Lumber & Paper Prod.	3,200	3,100	3,100	100	100
All Other Mfg.	3,100	3,100	3,300	0	-200
Trans. Comm. & Utilities	18,900	18,000	19,300	900	-400
Trucking & Whseing.	2,100	2,000	2,500	100	-400
Water Transportation	1,300	1,100	1,500	200	-200
Air Transportation	5,900	5,600	5,600	300	300
Other Trans. Comm. & Utilities	9,600	9,300	9,700	300	-100
Trade	42,800	42,000	46,100	800	-3,300
Wholesale	7,600	7,500	8,400	100	-800
Retail	35,200	34,500	37,700	700	-2,500
Gen. Mer. & Apparel	5,200	5,000	5,400	200	-200
Food Stores	6,000	6,100	6,100	-100	-100
Eating & Drinking Pl.	13,200	12,900	14,200	300	-1,000
Other Retail Trade	10,800	10,500	12,000	300	-1,200
Finance-Ins. & R.E.	12,000	11,900	13,000	100	-1,000
Services & Misc.	43,900	42,700	45,500	1,200	-1,600
Government	64,700	68,600	67,200	-3,900	-2,500
Federal	18,800	18,500	18,400	300	400
State	18,300	19,300	19,800	-1,000	-1,500
Local	27,600	30,800	29,000	-3,200	-1,400

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

After a slow start tourism appears to be picking up around the state. Several areas have reported an increase in visitors over the 1986 levels. This increased activity is not yet evident in the June statewide employment data but should appear in the July trade, services, and transportation employment numbers.

Anchorage has reported a sizable increase in traffic which is supported by the air transportation employment data with both over-the-month and over-the-year gains. Fairbanks is reporting a slight increase in tourist spending, offsetting to some extent reduced local spending. In Southeast, tour boat traffic has been down in most communities from the 1986 levels, however, 1986 was a record as a result of the Vancouver EXPO. Compared to 1985, tourist traffic appears to be up significantly.

An interesting occurrence the last two years is a change in the type of tourist now visiting Alaska. Recent tourists, including a fair number off the tour boats, are younger two income families, often with family in tow. This is reflected in changing spending patterns as well. There are more purchases of t-shirts and less expensive items compared to purchases of Alaska art and gold that was a major source of income to gift shop owners in the past.

An additional positive catalyst to Alaska's economy is increasing mineral mining employment. Metal mining employment is up significantly over-the-year after two years of declines. June metal mining employment was up 38.6% over the year, approximately equal to 1985 levels, but still less than the peak 1982/1983 years.

Metal mining employment gains were widespread. Every region, except Anchorage/MatSu, showed over-the-year employment increases in June. While attention has centered on the Red Dog mine in the Northwest Arctic Borough and the Greens Creek mine in the Southeast, production and exploration employment increases are evident in other mining ventures. The most important occurrence is the increase in the exploration activity as higher mineral prices have revived Alaska's metal mining industry. Unfortunately these gains have been largely offset by declines in the oil industry since last year.

Recent tourists are younger two income families, often with family in tow.

Table 2
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/	r/		Changes From:	
	6/87	5/87	6/86	5/87	6/86
Nonag. Wage & Salary	106,000	104,550	111,300	1,450	-5,300
Mining	3,350	3,350	3,600	0	-250
Construction	7,650	6,650	8,150	1,000	-500
Manufacturing	2,900	2,550	2,850	350	50
Food & Kindred Prod.	1,000	700	1,000	300	0
Other Mfg.	1,900	1,850	1,850	50	50
Trans. Comm. & Utilities	9,600	9,150	9,900	450	-300
Trucking & Whseing.	1,500	1,350	1,600	150	-100
Water Transportation	300	300	300	0	0
Air Transportation	3,100	3,000	3,050	100	50
Other Trans. Comm. & Utilities	4,700	4,500	4,950	200	-250
Trade	24,750	24,400	26,700	350	-1,950
Wholesale	5,600	5,500	6,250	100	-650
Retail	19,150	18,900	20,450	250	-1,300
Gen. Merchandise	1,800	1,800	1,900	0	-100
Food Stores	3,050	3,000	3,050	50	0
Eating & Drinking Pl.	7,550	7,450	8,150	100	-600
Other Retail Trade	6,750	6,650	7,350	100	-600
Finance-Ins. & R.E.	7,850	7,800	8,450	50	-600
Services & Misc.	24,200	23,900	25,750	300	-1,550
Government	25,700	26,750	25,900	-1,050	-200
Federal	10,700	10,450	10,150	250	550
State	6,550	6,950	7,050	-400	-500
Local	8,450	9,350	8,700	-900	-250

Table 3
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/	r/		Changes From:	
	6/87	5/87	6/86	5/87	6/86
Nonag. Wage & Salary	112,750	111,400	118,350	1,350	-5,600
Mining	3,350	3,350	3,600	0	-250
Construction	8,050	7,050	8,600	1,000	-550
Manufacturing	2,950	2,600	2,950	350	0
Trans. Comm. & Utilities	10,350	10,000	10,450	350	-100
Trade	26,300	26,000	28,300	300	-2,000
Finance-Ins. & R.E.	8,400	8,350	9,000	50	-600
Services & Misc.	25,300	24,950	27,050	350	-1,750
Government	28,050	29,100	28,400	-1,050	-350

Increasing oil prices the last few months have many Alaskans beginning to anticipate a turnaround in Alaska's economy. Recent developments suggest there is reason for optimism. The major oil companies announced plans to increase exploration and development efforts as a result of the higher price of oil. Employment increases in the oil industry or oil industry related construction was not evident in June but may appear later this year. In addition to speculation about the oil companies plans there is some expectation that the higher price for oil will result in greater state government spending.

The state budget has been determined for the upcoming year and cuts in spending will have a direct effect in less state employment and less capital projects than past years. Should the price of oil remain in the $18+ per barrel range, some indirect effects may be alleviated as peoples expectations about next year change. Even in the $18 per barrel range the additional revenues do not allow much of an increase in the state's future budgets.

It is too early to determine if renewed confidence is warranted. The recent price of oil is not justified by supply and demand. Oil remains plentiful with stocks relatively high and OPEC exceeding its production quotas.

The current market situation is impacted by the concern of U.S. involvement in the Middle East. The spot market has seldom been a good indicator of future prices in situations like the present one and in the past OPEC has only been successful in setting the price of oil when the political situation or markets have allowed.

When examining the economic factors that affect oil prices there is reason to assume a price less than the current $20 per barrel. Because of the politics surrounding oil any forecast of the long term price of oil is difficult. Therefore, as the price of oil fluctuates the state will continue to budget conservatively.

Other industries continue to be impacted by major declines in construction activity and Alaska's weak economic condition. Construction responded to seasonal factors as heavy construction (highway, street, and utility construction) and general construction (residential and commercial buildings) were up strong over the month. Average weekly hours were up in all segments of construction but highway and street had the most marked increase in hours worked (Table 8).

The surprise was the increase in residential construction employment given the depressed housing market. However, residential construction employment was still the lowest since pre-pipeline days and overall construction employment has not been this low in June since 1980.

Gains in employment construction around the state were mixed. Gains over-the-month were concentrated in Anchorage (13.2%), Fairbanks (29.1%), and the Southwest Region (21.7%). The Southeast Region had a small gain (4.5%) while the Gulf Coast and Northern Regions had over-the-month losses in construction employment.

The poor seasonal showing in the transportation industry is a combination of the weak seasonal increase in construction and the general weak economy. Water transportation employment is up in the Southeast as a result of the strong timber industry but down elsewhere as construction remains in a depressed state. The over-the-year gain in the air transportation sector is a combination of a strong tourist season in Anchorage and a gradual increase in employment from other airlines to replace losses due to Wein Airlines closing in late 1985.

The over-the-year weakness in trade, services, and finance-insurance and real estate are no longer restricted to the decline in construction. Concern about the economy and the impact of a smaller state budget have firms reducing employment (food stores, banks, and motion pictures and educational services for example) at the same time that seasonal increases are seen in other industries (hotels, eating and drinking places, and tourist related services).

Some secondary industries are benefiting from the poor economic conditions. Auto repair employment has remained strong while auto dealers employment has fallen, as people forgo the purchase of new automobiles. These gains would be stronger were it not for the loss in population and income.

The biggest over-the-month losses were in government as local schools and Alaska's university system reduced their staff for the summer season. This is an annual ritual and is consistent with past trends. Because school teachers are considered employed through the summer, over-

Table 4
Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

				Changes From:	
	p/ 6/87	r/ 5/87	6/86	5/87	6/86
Nonag. Wage & Salary	27,200	26,700	28,600	500	-1,400
Mining	150	100	100	50	50
Construction	1,800	1,400	2,000	400	-200
Manufacturing	650	600	650	50	0
Trans. Comm. & Utilities	2,850	2,700	2,950	150	-100
Trucking & Whseing.	400	400	400	0	0
Air Transportation	1,050	950	1,000	100	50
Other Trans. Comm. & Utilities	1,400	1,350	1,550	50	-150
Trade	5,950	5,750	6,400	200	-450
Wholesale	900	900	1,000	0	-100
Retail	5,050	4,850	5,400	200	-350
Gen. Mer. & Apparel	550	500	550	50	0
Food Stores	700	750	750	-50	-50
Other Retail Trade	3,800	3,600	4,100	200	-300
Finance-Ins. & R.E.	1,050	1,000	1,150	50	-100
Services & Misc.	5,900	5,700	6,200	200	-300
Government	8,850	9,450	9,150	-600	-300
Federal	3,100	3,000	3,000	100	100
State	3,250	3,700	3,450	-450	-200
Local	2,500	2,750	2,700	-250	-200

Table 5
Nonagricultural Wage and Salary Employment
By Place of Work
Interior

				Changes From:	
	p/ 6/87	r/ 5/87	6/86	5/87	6/86
Nonag. Wage & Salary	31,400	31,000	33,000	400	-1,600
Mining	300	250	250	50	50
Construction	2,000	1,550	2,250	450	-250
Manufacturing	650	650	650	0	0
Trans. Comm. & Utilities	3,200	3,050	3,250	150	-50
Trade	6,350	6,050	6,850	300	-500
Finance-Ins. & R.E.	1,100	1,100	1,200	0	-100
Services & Misc.	6,500	6,250	6,850	250	-350
Government	11,300	12,100	11,700	-800	-400

Table 6
Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

				Changes From:	
	p/ 6/87	r/ 5/87	6/86	5/87	6/86
Nonag. Wage & Salary	29,600	28,550	31,050	1,050	-1,450
Construction	1,150	1,100	1,300	50	-150
Manufacturing	4,350	3,950	4,300	400	50
Food & Kindred Prod.	1,150	950	1,200	200	-50
Lumber & Paper Prod.	3,000	2,800	2,900	200	100
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	2,550	2,150	2,550	400	0
Trade	4,700	4,350	4,850	350	-150
Wholesale	350	350	350	0	0
Retail	4,350	4,000	4,500	350	-150
Finance-Ins. & R.E.	1,250	1,100	1,300	150	-50
Mining, Services & Misc.	4,450	4,350	4,750	100	-300
Government	11,150	11,550	12,000	-400	-850
Federal	2,200	2,050	2,200	150	0
State	5,050	5,200	5,550	-150	-500
Local	3,900	4,300	4,250	-400	-350

Table 7
Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/ 6/87	r/ 5/87	6/86	Changes From: 5/87	 6/86
Nonag. Wage & Salary	20,800	20,250	21,350	550	-550
Mining	850	850	950	0	-100
Construction	1,000	1,000	1,400	0	-400
Manufacturing	4,100	3,850	3,850	250	250
Food & Kindred Prod.	3,500	3,250	3,250	250	250
All Other Mfg.	600	600	600	0	0
Trans. Comm. & Utilities	1,450	1,400	1,400	50	50
Trade	3,850	3,550	3,900	300	-50
Wholesale	650	600	650	50	0
Retail	3,200	2,950	3,250	250	-50
Finance-Ins. & R.E.	650	650	700	0	-50
Services & Misc.	3,600	3,450	3,600	150	0
Government	5,300	5,500	5,550	-200	-250
Federal	700	650	650	50	50
State	1,550	1,550	1,650	0	-100
Local	3,050	3,300	3,250	-250	-200

the-year losses in educational employment will not appear until the fall numbers are available. With reduced state funding and declines in population there will probably be a year-to-year loss that is not reflected in the current statistics.

Conclusion

Despite all its problems there are a number of positive factors that have increased optimism about Alaska's economic future. The timber industry has recovered and continues to expand slowly. The fishing industry is in perhaps its best condition in years with low inventories, an increasing bottomfish industry, slow recovery of the shellfish industry, and an expanding worldwide market for seafood. The metal mining industry is recovering rapidly as mineral prices improve. With relatively high prices for oil, the oil industry is showing renewed interest in exploration and development in Alaska and the state's expected revenue picture has improved.

Alaska's economy, however, is still dominated by the oil industry. The oil industry has accounted for more construction spending in the 1980s than any other industry, including state government. The state's spending is determined by both the price of oil and the levels of production, a factor of oil field development. If the oil companies increase exploration and development efforts and Alaska's state government maintains or increases the current spending levels the worse may be behind us.

That's a big if. The current price of oil is based on mounting tensions in the Persian Gulf, not on the underlying economic factors that in the long run determine the price of most commodities. Keep in mind that the people who are now predicting $20/barrel oil are the same prognosticators who were predicting oil under $10/barrel just months ago. Until there is evidence that OPEC can maintain their market control in a less politicized market, both the oil companies and the state government's spending will increase cautiously.

Table 8
Alaska Hours and Earnings for Selected Industries 1/ 2/

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 6/87	R/ 5/87	6/86	P/ 6/87	R/ 5/87	6/86	P/ 6/87	R/ 5/87	6/86
Mining	1,129.45	1,143.87	1,081.02	49.0	48.8	50.8	23.05	23.44	21.28
Construction	1,033.06	979.65	1,056.24	42.2	40.7	43.2	24.48	24.07	24.45
Manufacturing	455.87	462.01	469.13	41.9	42.7	37.5	10.88	10.82	12.51
Food & Kindred Prod	330.01	303.88	269.55	41.2	41.4	31.6	8.01	7.34	8.53
Lumber & Paper Prod	661.62	718.26	817.02	45.1	48.4	51.0	14.67	14.84	16.02
Trans., Comm. & Utilities	550.61	555.93	578.03	35.5	35.5	36.7	15.51	15.66	15.75
Trade	371.35	369.51	382.36	34.1	33.5	34.2	10.89	11.03	11.18
Wholesale	506.91	492.38	510.68	37.3	36.5	37.8	13.59	13.49	13.51
Retail	324.39	327.60	337.26	33.0	32.5	33.0	9.83	10.08	10.22
Finance-Ins. & R.E	387.29	384.42	396.97	32.6	32.8	34.7	11.88	11.72	11.44

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

Table 9
Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 6/87	R/ 5/87	6/86	P/ 6/87	R/ 5/87	6/86	P/ 6/87	R/ 5/87	6/86	P/ 6/87	R/ 5/87	6/86
Alaska Statewide	260,401	259,350	265,662	29,152	28,639	28,976	11.2	11.0	10.9	231,249	230,711	236,686
Anch.-MatSu Region	136,543	137,178	140,642	13,466	13,599	13,789	9.9	9.9	9.8	123,077	123,579	126,853
Anchorage Borough	120,085	120,778	123,472	10,387	10,521	10,579	8.6	8.8	8.6	109,698	110,157	112,893
MatSu Borough	16,458	16,400	17,170	3,079	2,978	3,210	18.7	18.2	18.7	13,379	13,422	13,960
Gulf Coast Region	28,727	28,229	29,009	3,795	3,619	3,971	13.2	12.8	13.7	24,932	24,610	25,038
Kenai Peninsula Bor. . .	17,773	17,468	18,097	2,897	2,784	3,158	16.3	15.9	17.5	14,876	14,684	14,939
Kodiak Island Bor	6,718	6,542	6,753	505	409	514	7.5	6.3	7.6	6,213	6,133	6,239
Valdez-Cordova	4,236	4,219	4,159	393	426	299	9.3	10.1	7.2	3,843	3,793	3,860
Interior Region	40,186	40,205	40,729	6,031	6,047	5,706	15.0	15.0	14.0	34,155	34,158	35,023
Fairbanks North Star Br	34,564	34,596	35,298	4,907	4,936	4,888	14.2	14.3	13.8	29,657	29,660	30,410
Southeast Fairbanks ...	2,358	2,377	2,324	367	386	282	15.6	16.2	12.1	1,991	1,991	2,042
Yukon-Koyukuk	3,264	3,232	3,107	757	725	536	23.2	22.4	17.3	2,507	2,507	2,571
Northern Region	8,214	8,031	7,960	1,326	1,099	1,105	16.1	13.7	13.9	6,888	6,932	6,855
Nome	3,178	3,126	3,124	562	493	520	17.7	15.8	16.6	2,616	2,633	2,604
North Slope Borough ..	2,784	2,757	2,712	249	206	190	8.9	7.5	7.0	2,535	2,551	2,522
Northwest Arctic Bor. . .	2,252	2,148	2,124	515	400	395	22.9	18.6	18.6	1,737	1,748	1,729
Southeast Region	34,311	33,663	35,209	3,088	3,092	3,216	9.0	9.2	9.1	31,223	30,571	31,993
Haines Borough	944	929	941	101	103	77	10.7	11.1	8.2	843	826	864
Juneau Borough	14,882	14,601	15,460	1,045	1,053	1,280	7.0	7.2	8.3	13,837	13,548	14,180
Ketchikan Gateway Br	6,979	6,823	7,114	690	665	670	9.9	9.7	9.4	6,289	6,158	6,444
Pr. of Wales-Outer Ktch .	2,503	2,438	2,529	372	352	346	14.9	14.4	13.7	2,131	2,086	2,183
Sitka Borough	4,047	3,988	4,130	327	346	319	8.1	8.7	7.7	3,720	3,642	3,811
Skagway-Yakutat-Ang.	1,504	1,501	1,557	168	193	188	11.2	12.9	12.1	1,336	1,308	1,369
Wrangell Petersburg	3,452	3,383	3,478	385	380	336	11.2	11.2	9.7	3,067	3,003	3,142
Southwest Region	12,420	12,044	12,113	1,446	1,183	1,189	11.6	9.8	9.8	10,974	10,861	10,924
Aleutian Islands	3,081	3,033	3,027	150	132	109	4.9	4.4	3.6	2,931	2,901	2,918
Bethel	5,088	4,872	4,996	733	562	661	14.4	11.5	13.2	4,355	4,310	4,335
Bristol Bay Borough ...	446	446	436	28	32	20	6.3	7.2	4.6	418	414	416
Dillingham	2,182	2,154	2,097	241	233	165	11.0	10.8	7.9	1,941	1,921	1,932
Wade Hampton	1,623	1,539	1,557	294	224	234	18.1	14.6	15.0	1,329	1,315	1,323

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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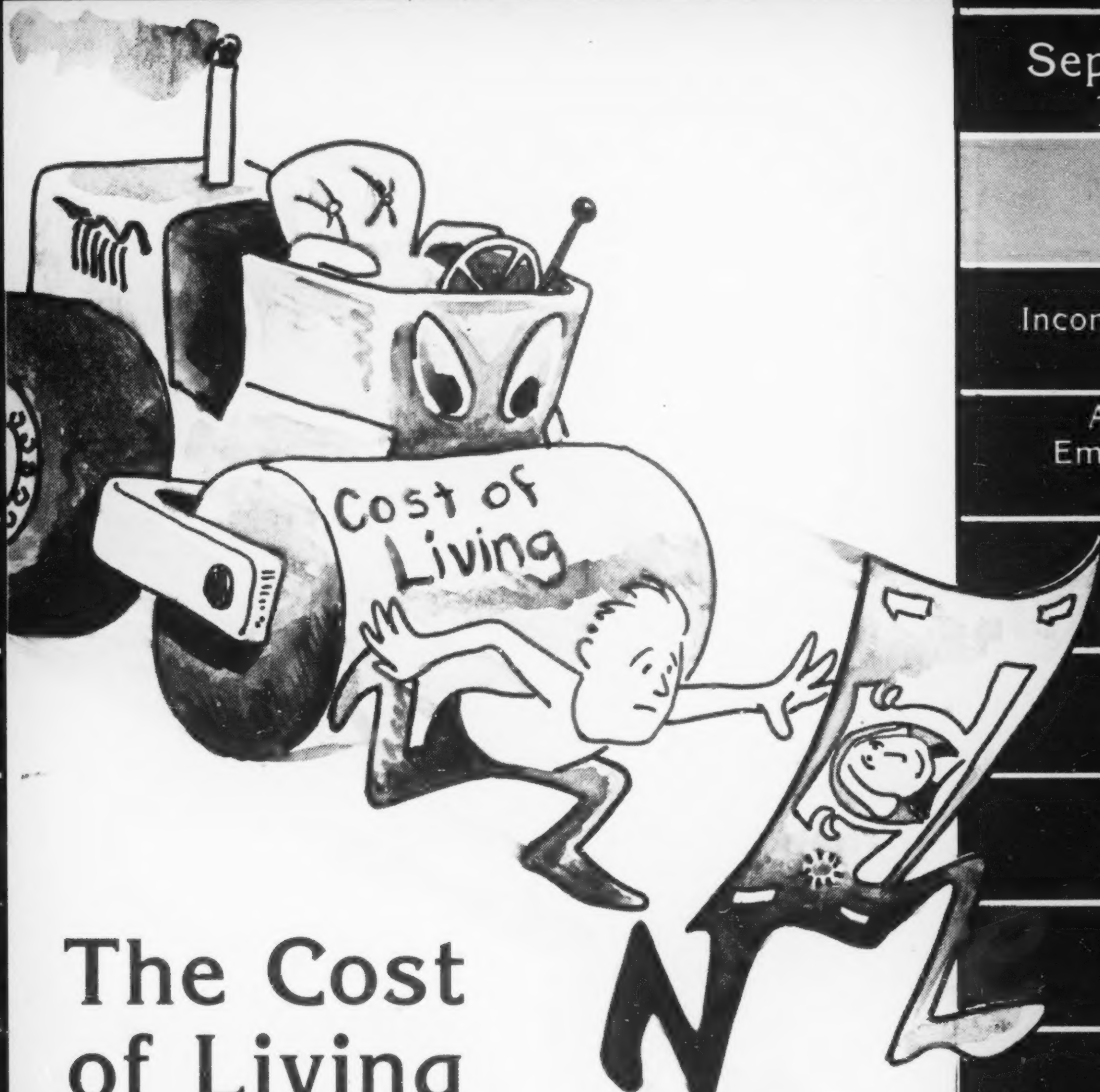
ALASKA ECONOMIC

TRENDS

September
1987

Income Measures

Alaska's Employment Scene


Cost of
Living

The Cost of Living in Alaska

Alaska Economic Trends

Steve Cowper, Governor, State of Alaska

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

The Cost of Living in Alaska

By John Boucher

Introduction

Alaska has a reputation of being a place where living costs are very high. Alaska's size, climate, and distance from markets explains much of the difference in living costs between Alaska and the rest of the continental U.S. Geography and market size are also reasons for different costs of living between communities within Alaska.

Alaska's land area is 566,432 square miles or nearly one-fifth the combined land area of the other forty-nine states. Spread out over this huge area is the third smallest population in the U.S., 539,600 in 1985, or less than one person per square mile. In addition to a widely dispersed population, Alaska's largest market and distribution center, Anchorage, is more than 2,400 road miles away from Seattle. Consequently, providing goods and services to communities around the state presents difficult operational problems, complicated by a lack of roads and uncertain weather.

Alaska's size, climate, and distance from markets explains much of the difference in living costs between Alaska and the rest of the continental U.S.

Alaska's harsh weather conditions not only complicate the distribution of goods and services it also makes infrastructure more expensive to build and maintain. Roads, buildings and water and sewer lines must be built to withstand the rigors of a climate that can fluctuate from 95 degrees in the summer to -70 degrees in the winter.

These two factors and the costs involved in overcoming them restricts the availability of goods and services in many Alaska communities. As a consequence, Alaska's smaller isolated towns may not have the price variations available in larger cities. Smaller communities in Alaska, especially those located some distance from a population center, have their own problems. Items that have to be brought into these areas such as food, fuel oil, and other supplies or local purchases may be exorbitantly expensive. However, one consideration is that in rural areas of Alaska a subsistence lifestyle contributes to supplementing income and bringing the overall cost of living down.

The businessman or individual can get a more comprehensive view of the Alaskan economy with respect to the cost of living or the cost of operating a business from the data presented in this article. Careful analysis is required before drawing conclusions about cost differences between Alaska and other locations. In addition, value judgments will be necessary in the decision making process. For example the lifestyle that Alaska offers may offset the potential increases in the cost of living. On the other hand, the isolation and harsh climate characteristic of some Alaskan communities is too much for some people to endure at any level of income.

Table 1
ACCRA Inter-City Cost of Living Index 1st Quarter 1987

City	All Items Index	Grocery Items	Housing	Utilities	Trans-portation	Health Care	Misc. Goods & Services
West							
ANCHORAGE, AK	136.4	134.5	148.9	99.0	123.3	190.7	135.0
FAIRBANKS, AK	137.6	126.9	143.2	108.8	120.8	224.4	136.9
JUNEAU, AK	143.5	131.3	148.6	130.2	148.2	221.4	131.2
Salt Lake City, UT	98.8	96.5	90.3	89.9	100.8	105.4	107.3
San Diego, CA	121.8	102.2	178.0	79.1	120.8	130.0	105.8
Seattle, WA	108.5	111.4	104.6	56.6	110.9	161.5	115.3
Southwest							
Albuquerque, NM	102.8	104.4	114.0	85.0	101.4	108.8	99.4
Dallas, TX	106.6	104.6	106.8	106.9	105.7	119.0	105.0
Phoenix, AZ	105.1	101.4	108.5	93.1	101.6	130.5	104.7
Midwest							
Saint Paul, MN	103.7	94.2	112.0	109.5	115.1	104.3	95.8
Omaha, NE	98.0	89.0	96.7	87.1	101.1	93.0	107.8
St. Louis, MO	100.1	99.4	99.7	105.1	95.7	107.3	99.2
Southeast							
Atlanta, GA	111.9	99.5	132.0	127.9	97.0	113.6	104.4
Birmingham, AL	99.7	99.7	94.9	105.5	102.7	104.6	98.5
Louisville, KY	96.1	95.5	91.9	98.6	99.0	101.5	96.1
Atlantic/New Eng.							
Baltimore, MD	105.2	99.3	114.2	99.2	105.9	106.5	103.5
Boston, MA	152.2	116.4	271.3	126.1	111.5	154.2	112.0
New York, NY	137.2	111.1	183.8	182.6	114.0	144.8	109.6
Philadelphia, PA	118.7	112.3	122.0	157.7	101.5	134.4	109.5

Source: *Inter-City Cost of Living Index*, (247 Cities) 1st Quarter 1987. American Chamber of Commerce Researchers Association.

Cost of Living Measures

There are several comparative cost of living measurements available, each with their strengths and weaknesses. Most cost of living measures presented here give a comparison of costs between communities at a point in time. The only measure of change in costs over time for Alaska is the Anchorage consumer price index, which is produced by the U.S. Department of Labor, Bureau of Labor Statistics.

Used together, the data presented here make it possible to estimate the difference in costs between communities in Alaska and or between communities in Alaska and the rest of the U.S.

ACCRA Inter-City Cost of Living Index

Each quarter, the American Chamber of Commerce Researchers Association (ACCRA) gathers price data for more than 240 cities throughout the U.S. and compiles them into the *Inter-City Cost of Living Index*. Fifty-nine items are priced at the local level by chamber of commerce personnel at specified times using standard methodology. The items priced are intended to represent the spending patterns of a mid-management executive household in the community. Once the price data is gathered it is converted to an index number.

The ACCRA index measures relative price differences for consumer goods and services between the participating cities. It compares the local community index to the national average of 100. The 59 items priced are limited so the ACCRA does not treat percentage differences between two index numbers as exact cost of living differentials. Differences of less than three index numbers (for example 107 versus 104) are considered insignificant and may not correctly show which city is more expensive. Differences of more than three index numbers are considered to represent a difference in the cost of living between two locations.

Alaska's smaller isolated towns may not have the price variations available in larger cities.

Table 2
ACCRA Inter-City Cost of Living Index 1st Quarter 1987

City	1 lb Ground Beef	½ gal Whole Milk	1 lb Coffee	House Purchase Price	Total Energy Costs	1 gal Gas	Hospital Room	Office Visit Doctor
West								
ANCHORAGE, AK	$1.24	$1.73	$4.49	$131,633	$118.09	$ .86	$354.50	$41.67
FAIRBANKS, AK	1.35	1.79	4.05	126,725	127.98	.99	305.00	43.10
JUNEAU, AK	1.57	1.69	3.64	133,500	146.91	1.27	350.00	38.33
Salt Lake City, UT	1.14	1.02	3.64	80,969	98.18	.80	239.00	22.60
San Diego, CA	1.21	1.01	3.16	147,500	92.09	.84	283.20	32.80
Seattle, WA	1.36	1.17	3.96	92,341	59.15	.76	259.75	38.40
Southwest								
Albuquerque, NM	1.01	1.15	3.71	103,923	96.27	.75	232.60	24.86
Dallas, TX	1.35	1.30	3.11	94,391	126.04	.78	206.30	32.60
Phoenix, AZ	1.41	.95	3.45	94,583	107.07	.76	251.00	32.40
Midwest								
Saint Paul, MN	1.19	1.06	3.49	96,400	124.93	.84	269.00	22.80
Omaha, NE	1.01	1.04	4.11	80,900	95.61	.85	183.00	21.00
St. Louis, MO	1.24	1.11	3.82	85,510	124.86	.80	201.80	31.80
Southeast								
Atlanta, GA	1.22	1.40	3.55	119,000	148.95	.74	194.75	30.00
Birmingham, AL	1.32	1.23	3.12	86,400	115.89	.81	211.20	29.40
Louisville, KY	1.03	1.35	3.51	81,300	110.79	.85	226.50	28.00
Atlantic/New Eng.								
Baltimore, MD	1.33	1.03	3.34	97,460	111.45	.80	265.40	27.40
Boston, MA	1.72	1.02	3.24	225,000	146.91	.82	367.40	43.80
New York, NY	1.59	1.29	2.97	135,000	215.62	.82	232.00	48.00
Philadelphia, PA	1.82	1.10	3.48	102,280	191.85	.80	385.20	31.00
ALL CITIES MEAN[1]	1.26	1.19	3.32	89,163	115.22	.84	201.23	24.55

[1] All cities mean is the mean price of all 247 cities surveyed in the second quarter 1987

Source: *Inter-City Cost of Living Index*. (247 Cities) 1st Quarter 1987. American Chamber of Commerce Researchers Association.

In addition to a small number of items priced, the ACCRA index has other limitations. For example, the ACCRA index does not include state and local taxes due to the difficulty in measuring each areas total tax burden. In comparing Alaska to other areas, this could be an integral part in the overall difference in the cost of living because Alaska has no state personal income tax and many local area tax burdens are relatively low when compared to other locations in the U.S.

Tables 1 and 2 are excerpted from the first quarter 1987 ACCRA index and compare Anchorage, Fairbanks and Juneau to 16 other cities in the U.S. Data on more than 220 additional cities is also available upon request from the American Chamber of Commerce Researchers Association, the Anchorage Chamber of Commerce, the Alaska Department of Labor, research and analysis section or your local chamber of commerce if your city is a participant in the ACCRA index. The cities chosen for Tables 1 and 2 are only a representative sample of those available.

With the exception of Boston and New York City, the three Alaskan cities were the most expensive cities surveyed. In nearly every one of the six subcategories of the index the Alaskan cities were 25 to 30 percent more expensive to live in than the average city surveyed. The three Alaskan cities were higher in nearly every index subcategory while other high cost cities such as Boston and New York City tend to be more expensive in the housing, utilities and health care indexes and not far from the survey average in the groceries, transportation and miscellaneous goods and services subcategories.

In nearly every one of the six subcategories of the index the Alaskan cities were 25 to 30 percent more expensive to live in than the average city surveyed.

This pattern in the indexes indicate that the overall cost of living in the three Alaskan cities is comparable to that of New York City but that in Alaska the higher cost of living is not attributable to just one item. In contrast, the relatively high cost of living in the urban areas which have costs of living similar to the Alaskan cities can be attributed to the high demand that large population centers have for essential services such as housing, utilities and health care.

The most expensive communities in Alaska are small, relatively isolated communities.

Trends in the ACCRA index indicate that it is becoming relatively less expensive to live in the three Alaskan cities because the housing component of the index, the largest part of the total budget, has become less expensive in the last year. (Table 3) Falling house prices and a shakeout in the Alaskan real estate market are the sources for the drop in housing costs. An indication of this trend is a drop in apartment rental prices in the ACCRA survey of 10-15% since the second quarter of 1985.

Just as important, the ACCRA indexes point to a tremendous difference in the cost of health care services in Alaska when compared to other locations. This magnitude of the cost differential as measured by this particular index may be on shaky ground because of the limited number of items priced, but the health care services items that were priced were at least 60% higher than the median price for all cities surveyed. Another factor is that in Alaska's urban areas some medical services are unavailable and patients must be transported to Seattle to receive adequate medical care. In short the ACCRA index indicates that Alaska's remote location and the small market size tend to affect health care costs even more dramatically than the average good or service.

Table 3
Anchorage All Items and Housing Indexes
1st Quarter 1985 to 1st Quarter 1987

Qtr/Year	Anchorage All Items	U.S. All Items	Anchorage Housing	U.S. Housing
1/85	142.0	100.0	170.8	100.0
2/85	139.2	100.0	174.4	100.0
3/85	139.1	100.0	170.8	100.0
4/85	139.4	100.0	178.7	100.0
1/86	*	100.0	*	100.0
2/86	140.6	100.0	166.3	100.0
3/86	139.4	100.0	160.8	100.0
4/86	134.3	100.0	141.3	100.0
1/87	136.4	100.0	148.9	100.0

* No observation for Anchorage for 1st quarter 1986

Source: American Chamber of Commerce Researchers Association, *Inter-City Cost of Living Index*, First Quarter 1985 First Quarter 1987.

Both the index numbers and the average prices for all of the cities surveyed are published in the *Inter-City Cost of Living Index*. The ACCRA quarterly survey is available at an annual rate of $75.00. Subscriptions may be ordered by writing to the following address:

Mrs. Alice Klien
ACCRA Project Treasurer
Louisville Chamber of Commerce
One Riverfront Plaza
Louisville, KY 40202

Cost of Food at Home

Comparing the cost of living between communities in Alaska is complicated by several factors. Many goods and services available in larger cities are not readily available at any price in Alaska's rural areas. The consumption habits of urban Alaskans vary from their rural counterparts. This results in different "typical" market baskets in urban and rural areas and complicates any comparison in the cost of living. Subsistence contributions also make cost of living comparisons more difficult.

The University of Alaska, in cooperation with the U.S. Department of Agriculture, does a quarterly survey of food prices in an attempt to measure how much it costs to feed various size families at different locations throughout the state. Some additional expenditures such as gasoline, heating oil and electricity are included in the survey. While the Cost of Food at Home survey is not a comprehensive survey of living costs at these locations, it does provide some idea of the relative cost of living in the surveyed areas.

Table 4 is an excerpt from the Cost of Food at Home survey for March 1987. The Cost of Food at Home data suggest that there are three tiers of living costs within those cities surveyed. Urban areas of the state tend to have food costs very near those of Anchorage, while Anchorage food

Table 4
Cost of Selected Items in Various Alaskan Communities
March 1987

Community	Percent Sales Tax	Cost of Food, 1 week[1]	Ratio of Food Cost to Anchorage Average (percent)	Ratio of Food Cost to U.S. Average (percent)	Electricity (1000 kwh)	Heating Oil (55 gal)	Unleaded Gas 1 gal	Lumber (2x4x8)
U.S. Average	0%	$84.10	95%	100%	-	-	-	-
Anchorage	0	88.65	100	105	$62.40	$45.65	0.90	-
Bethel	5	142.14	160	169	148.05	66.50	1.53	3.50
Delta	0	133.55	151	159	78.65	41.80	0.99	2.10
Dillingham	3	137.50	155	163	114.40	72.99	1.59	3.20
Fairbanks	0	90.65	102	108	80.78	40.43	0.89	1.88
Juneau	4	88.07	99	105	113.12	50.46	1.36	2.11
Kenai	5	93.81	106	112	80.00	45.28	1.02	2.05
Ketchikan	5	88.25	100	105	96.55	46.75	1.30	1.84
Kodiak	5	108.92	123	130	160.00	60.50	1.36	1.87
Kotzebue	3	137.35	155	163	239.62	69.85	1.76	2.97
MatSu	0	89.98	102	107	85.49	49.50	1.04	1.85
McGrath	0	133.22	150	158	253.75	121.00	2.20	4.75
Nome	4	143.29	162	170	87.20	80.30	1.70	3.38
Sitka	4	99.80	113	119	66.00	44.18	1.28	2.33
Tok	0	116.90	132	139	195.90	45.63	1.12	-
Unalakleet	0	146.25	165	174	-	118.80	2.21	-
Valdez	0	112.69	127	134	164.10	45.10	1.20	1.68

[1] Family of four with elementary school children

Sales tax included in food and utility cost.

-Data unavailable

Source: "Cost of Food at Home for a Week," March 1987, University of Alaska Cooperative Extension Service, U.S. Dept. of Agriculture and SEA Grant Cooperating

costs tend to be five to seven percent higher than the U.S. average.

The next tier of food costs are in communities which are smaller than the urban centers but not isolated because of transportation modes. Examples of this type of community are Kodiak and Valdez. These communities tend to have food costs 20 to 30 percent higher than Anchorage but they are not the most expensive communities in the state.

The most expensive communities in Alaska are small, relatively isolated communities. Food costs in these areas tend to be 50 to 70 percent higher than they are in Anchorage. Examples of these communities are Bethel, Kotzebue and McGrath.

A historical study of the Cost of Food at Home survey indicates that the cost of living gap between Alaska and the U.S. has gradually narrowed. Despite this convergence, the three tiers of living costs within Alaska have remained. In 1978, the Cost of Food at Home in Anchorage was 47.9% above the national average but by September of 1986 that gap had narrowed to a 10% difference (Table 5). A similar narrowing of the cost of food occurred between the U.S. average and Valdez and Bethel, two communities representative of the other two cost of living tiers. However the relative difference in cost of living between the urban areas, the small communities on mainline transportation and the isolated communities has been evident throughout this period.

The most noteworthy change identified is that food costs have moved toward the U.S. average faster in Anchorage than in those smaller communities that are on mainline transportation routes. Since 1978, the difference between the cost of food in Anchorage and Valdez has grown larger while the difference in food costs between Anchorage and the U.S. average has grown smaller. This change indicates that during the last ten years the Anchorage market has grown to a size which makes transportation of goods less of a cost factor in the Anchorage cost of living

The ACCRA indexes point to a tremendous difference in the cost of health care services in Alaska.

Table 5
Cost of Food at Home for a Week 1978-1986[1]

Mo/Year	U.S.	Anchorage	Percent of US Average	Valdez	Percent of US Average	Bethel	Percent of US Average
9/78	$56.90	$76.67	147.9%	$85.42	150.1%	$114.05	200.4%
12/79	63.70	85.80	144.3	-	-	120.44	189.1
9/80	69.20	88.44	130.8	97.70	141.2	130.87	190.2
9/81	72.90	86.69	135.1	106.68	146.3	138.66	168.2
9/82	74.60	77.30	123.4	-	-	125.50	171.5
9/83	74.80	81.66	112.0	-	-	128.30	176.0
9/84	77.60	84.22	117.6	102.41	132.0	136.54	176.0
9/85	78.30	89.06	115.0	103.57	132.3	138.13	176.4
9/86	82.00	87.25	110.5	106.85	130.3	137.96	168.2

[1] Family of four with elementary school children

Sales tax included in food prices

- Data unavailable

Source: "Cost of Food at Home for a Week," September 1978 to September 1986
University of Alaska Cooperative Extension Service.
U.S. Dept. of Agriculture and SEA Grant Cooperating

than it was ten years ago, at least as far as food costs are concerned.

Keep in mind however that the ACCRA survey indicates a much greater difference in the cost of food than is indicated by Cost of Food at Home for a Week. This could be due to the limited number of items priced by the ACCRA survey and also because of the different audiences the surveys are targeting. The ACCRA survey is designed based on the budget of a mid-management level executive while Cost of Food at Home is designed to find the minimum cost of providing a nutritionally sound diet for different family sizes.

Geographic Differential Study, 1985

A study done in April 1985 for the State of Alaska Department of Administration, Division of Labor Relations studied the differences in cost of living between Seattle, Anchorage, and twenty other election districts for the purpose of determining fair compensation levels for state employees. The study, entitled *Alaska Geographic Differential Study, 1985*, found that there are three cost of living tiers in the state. If Anchorage was considered as the base, most of the urban communities fell into that category having little or no differences in living costs between themselves and Anchorage. A second group of communities ranged from a 5 to 11% higher cost of living than Anchorage, while the rural areas ranged from 26% to 45% higher living costs than Anchorage. For more information about the *Alaska Geographic Differential Study, 1985* contact the Alaska Department of Administration, Division of Labor Relations.

Consumer Price Index

The consumer price index (CPI) is the most comprehensive ongoing consumer expenditure survey in the nation. The CPI is one of the most frequently used cost measures because of its relatively high profile. The U.S. Department of Labor, Bureau of Labor Statistics (BLS) produces a CPI for the U.S. and for selected urban areas. There are no CPI's for an entire state. In Alaska, a CPI is produced semiannually for Anchorage, published with the U.S. cities CPI for the months of January and July. The Anchorage CPI is a semiannual average index, which refers to the arithmetic averages of the six month period from January to June and July through December. Up until November 1986, the Anchorage CPI was published bimonthly. For 1985 and 1986 the BLS has calculated semiannual averages to measure changes in the semiannual index since 1985.

The CPI market basket includes expenditures made by typical consumers; from food and fuel to medical services and entertainment. Each month, Bureau of Labor Statistics employees check prices of goods and services included in the market basket in all surveyed urban areas. BLS computes the CPI by assigning weights to each good or service in a survey area based upon the average expenditure for that good or service. An index is computed for individual index components as well as a total for all items. There are two differently weighted indexes, which results in two CPI's produced for each area. One is for all urban consumers (CPI-U) and one is for urban wage earners and clerical workers (CPI-W). The CPI-U approximates the buying habits of 80% of the civilian noninstitutionalized population. The CPI-W approximates the buying habits of 40% of the civilian noninstitutionalized population. The CPI-U was first produced in 1978, previous to that only the CPI-W was available.

The consumer price index (CPI) compares the cost of the current market basket to the cost in a base year. The base year currently being used is 1967. This is an important distinction from the ACCRA index because the CPI does not measure cost of living levels between locations. The CPI is a measurement of price changes in a given location over a period of time. In other words, the CPI can tell you how fast prices are increasing in one area compared to another, but it cannot tell you in which area it is more expensive to live.

Table 6 compares the movement of the Anchorage CPI to the U.S. CPI from 1967 through 1986. In comparison to the U.S. cities average prices in Anchorage increased at a slower pace from October 1967 to 1974. This trend reversed itself during the period of pipeline construction, reflecting the inflationary impact of drastic economic expansion in Alaska. Prices in Anchorage increased at a more rapid rate than the rest of the nation from 1975-1977 and increased at a rate slightly below the national average in 1974 and 1978.

After completion of the pipeline, Anchorage prices began to rise at a slower rate than the rest of the nation. A decline in population and consumer spending as well as a period of adjustment following the heavy build up that occurred during the pipeline were all factors in the slowing rate of price increases in Anchorage.

From 1980 to 1982 the domination of residential lending by the Alaska Housing Finance Corporation makes it difficult to compare the change in the Anchorage index with the change in the U.S. cities index. Most probably Anchorage prices increased more rapidly than the the national average during this period because the Anchorage economy, especially the housing market, was going through a period of rapid expansion while most of the rest of the nation was in a recessionary period.

From 1983 to 1986 the changes in the Anchorage index have been almost identical to the changes in the U.S. cities average. Inflation throughout the nation has slowed due to the falling price of energy products. In 1986 the Anchorage index registered an identical increase in its annual CPI-U compared to the U.S. cities average. The moving together of the indexes during 1986 was due to the greater impact that falling energy prices had in the rest of the nation as opposed to Anchorage.

In the first half of 1987 the Anchorage CPI-U registered the smallest gain of all the cities measured by the Bureau of Labor Statistics. The slowdown in inflation was attributed to the continuing fall in housing costs in Anchorage.

Table 6
Annual Average CPI's
Anchorage, Seattle-Everett, & U.S. City Average 1967-86

Year	U.S.	Percent Change	Anchorage	Percent Change	Seattle	Percent Change
1967	100.0	-	100.0	-	100.0	-
1968	104.2	4.2%	102.6	2.6%	104.1	4.1%
1969	109.8	5.4	105.9	3.1	109.2	4.9
1970	116.3	5.9	109.6	3.5	114.0	4.4
1971	121.3	4.3	112.9	3.0	116.4	2.1
1972	125.3	3.3	115.9	2.7	119.7	2.8
1973	133.1	6.2	120.8	4.2	127.5	11.1
1974	147.7	11.0	133.9	10.8	141.5	11.0
1975	161.2	9.1	152.3	13.7	155.8	10.1
1976	170.5	5.8	164.1	7.7	165.5	5.6
1977	181.5	6.5	175.0	6.6	177.6	8.0
1978	195.4	7.7	187.5	7.1	194.8	9.7
1979	217.4	11.3	207.0	10.4	216.3	11.0
1980	246.8	13.5	228.2	10.2	252.1	16.6
1981	272.4	10.4	246.5	8.0	279.7	10.9
1982	289.1	6.1	260.1	5.5	297.8	6.5
1983	298.4	3.2	264.8	1.8	302.8	1.7
1984	311.1	4.3	275.6	4.1	313.9	3.7
1985	322.2	3.6	282.3	2.4	321.9	2.6
1986	328.4	1.9	287.8	1.9	325.2	1.0

Source: U.S. Department of Labor, Bureau of Labor Statistics

Other Cost Measures

In addition to the various cost of living measures, the Alaska Department of Labor, research and analysis conducts wage surveys and special studies which help measure the cost of living in Alaska. Cost of labor has traditionally been an important consideration in business location decisions.

In-the first half of 1987 the Anchorage CPI-U registered the smallest gain of all the cities measured by the Bureau of Labor Statistics.

Table 7
Wage Rates in Selected Occupations 1986[1]

Occupation	Statewide	Anchorage-MatSu	Interior	Southeast	Gulf Coast
Accountants & Auditors	$15.79	$14.11	$15.89	$14.56	$14.90
Drafters	12.42	12.61	12.92	10.72	*
Nurses, Registered	13.66	13.52	12.95	14.00	13.12
Cashiers	7.70	7.46	7.47	7.94	7.36
Salespersons, Retail	8.06	8.09	8.76	8.16	7.06
Travel Agents	8.75	8.53	9.10	9.32	8.57
Bookkeeping, Accounting & Auditing Clerks	10.79	9.81	11.07	10.68	10.14
Clerical Supervisors & Office Managers	13.14	12.56	13.49	13.39	*
General Office Clerks	9.04	9.01	9.18	8.39	10.00
Receptionists & Info. Clerks	9.13	8.35	8.38	9.72	9.68
Secretaries	10.71	10.96	10.23	10.60	9.74
Tellers	7.85	7.77	8.11	7.89	*
Bartenders	8.89	8.53	8.50	8.66	9.23
Dental Assistants	10.90	11.33	10.07	11.32	10.62
Food Preparation Workers	7.28	7.35	6.33	7.42	6.45
Janitors & Cleaners	7.81	7.81	7.24	8.30	6.23
Maids & Housekeepers	7.03	6.77	6.07	6.59	6.97
Waiters & Waitresses	5.38	5.09	4.58	5.80	5.27
Carpenters	16.36	14.33	*	16.97	14.98
Electricians, Commercial	19.77	17.63	*	*	23.17
Helpers, Laborers & Material Movers, Hand	10.35	9.57	*	10.75	11.40
Mechanic, Automotive	15.41	17.61	*	14.18	11.70
Truck Drivers, Heavy or Tractor Trailer	13.68	13.49	14.04	12.91	15.07

* No observation or no comparable observation

[1] Wage rates are the average wage for a worker with two years of experience at that occupation.

Source: Alaska Wage Rates 1986; Alaska Department of Labor, Research & Analysis

Table 8
Cost of a "Quarter Pounder" Meal by Location
Alaska, August 1987

Location	Quarter Pounder w/ cheese	Large Fries	Medium Drink	Total Meal Cost	Percent of Anch.
Adak	$2.19	$ .99	$ .79	$3.97	115.1%
Anchorage	1.80	.90	.75	3.45	100.0
Eagle River	1.99	.99	.79	3.77	109.3
Fairbanks	1.95	.95	.79	3.69	107.0
Homer	1.86	.92	.74	3.52	102.0
Juneau	1.94	.99	.74	3.67	106.4
Kenai	1.89	.95	.77	3.61	104.6
Ketchikan	1.95	.99	.70	3.64	105.5
Kodiak	1.99	.99	.80	3.78	109.6
Sitka	1.94	.99	.74	3.67	106.4
Soldotna	1.89	.95	.77	3.61	104.6
Wasilla	1.99	.99	.79	3.77	109.3
Avg. Price	1.95	.97	.76	3.68	

Quarter Pounder is a registered trademark of the McDonalds Corporation

Prices surveyed August 5-7, 1987

Table 7 lists the wage rates for selected occupations for a worker with two years of experience in that occupation. The U.S. Department of Labor, Bureau of Labor Statistics publishes wage studies for all states and for selected areas within states. A comparison of wage data for the Alaska region with the wage data for individual areas will assist in determining the difference in labor costs between areas.

While no universal cost of living comparison is available for every city in Alaska and the U.S., many communities in both Alaska and the U.S. have a McDonald's restaurant. As such the the Alaska Department of Labor has developed the Quarter Pounder Meal Index for the purpose of comparing Alaska communities to each other as well as to the location nearest to you (Table 8).

Income Measures

By Greg Huff and Judy Hallanger

Introduction

One income statistic shows that Alaska has one of the largest concentrations of millionaires in the United States—Alaska's count of 1,200 millionaires was the fifth highest among the 50 states in 1982. Another statistic reveals that over one in five Alaskans are below the poverty level at any one time. Census statistics show that over 42,000 persons in Alaska were below the poverty level at the beginning of this decade.

These are only two examples of the wide range of income measures available to analyze a variety of concepts and trends. Some of the most useful ways to use income statistics are to measure the purchasing power of individuals or an entire population. Other income measures can be used to gauge the average cost of an employee to a firm or as a yardstick to compare average monthly wage in various industries.

One in five Alaskans are below the poverty level at any one time.

This article will examine some of the most common income measures available for Alaska. We will primarily focus on data pertaining to personal income and its components, but will also provide statistics on poverty level guidelines. Also included are comparisons of Alaska income figures to national figures. Detailed data tables for reference are available throughout the article.

SOURCES OF PERSONAL INCOME

Personal income data from the U.S. Department of Commerce includes all possible legal sources of income. Three main components make up personal income[1]: 1) earnings 2) dividends, interest, and rent 3) transfer payments. Earnings, the largest component, is the sum of wages and salaries, other labor income (like contract work or tips) and proprietors' income.

Table 1 provides Alaska personal income statistics from 1980 to 1986. The data shows that earnings (less adjustments) accounted for 84% of total personal income in 1980, but by 1986 that proportion fell to 77%. During this period dividends, interest and rent; and transfer payments grew faster than earnings. This caused the share that earnings represented of total personal income to decrease.

Table 1
Components of Total Personal Income
(in millions of 1986 dollars)
Alaska, 1980-1986

	1980	1981	1982	1983	1984	1985	1986	Percent of Total 1980	Percent of Total 1986
Total Personal Income	$7,059	$7,494	$8,519	$9,442	$9,479	$9,658	$9,430	100.0%	100.0%
Net Earnings[1]	5,932	6,252	6,833	7,553	7,665	7,678	7,284	84.0	77.2
Dividends, Interest, & Rent	513	585	668	799	873	885	923	7.3	9.8
Transfer Payments	614	658	1,017	1,090	941	1,095	1,224	8.7	13.0
Total Earnings	6,769	7,229	7,935	8,740	8,826	8,840	8,340	100.0	100.0
Wages and Salaries	5,537	6,118	6,724	7,244	7,299	7,266	6,815	81.8	84.6
Other Labor Income	457	518	596	662	643	638	589	6.8	7.2
Proprietors' Income	774	593	614	834	884	919	936	11.4	8.2

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

[1] Total Earnings less adjustments for social insurance and residency.

The income component including dividends, interest, and rent is the total of the proceeds from investments by individuals, while transfer payments are income derived from government assistance to individuals. In table 1 the large increase in transfer payments in 1982 was primarily a result of the first annual permanent fund dividend payment to Alaskans. Unemployment payments boosted the transfer payment component in 1986 as the Alaskan economy went into a recession.

Alaska has one of the largest concentrations of millionaries in the United States.

Total personal income, the aggregate of income of all individuals from all legal sources, is a good indicator of the total purchasing power of Alaska's population. Data from the U.S Department of Commerce indicates that approximately 86% of Alaska's total personal income is disposable income—or income after taxes that is available for purchasing of goods and services or investing.

Disposable income totaled approximately $6.0 billion in 1980, increasing to $8.3 billion in 1985 (both figures are adjusted to 1986 dollars). This boost of $2.3 billion in spendable income was the impetus for the rapid growth of firms providing a variety of goods and services through 1985. With the onset of 1986 and the beginning of an economic downturn, disposable income fell slightly to $8.1 billion. The decline would have been greater if it were not for a sharp increase in unemployment insurance payments during that year, expanding the transfer payments category.

The largest component of personal income, earnings (less adjustments), declined by more than $400 million or nearly 6% in 1986 as wages and salaries and other labor income fell dramatically.

National income statistics show that the contribution of dividends, interest, rent and transfer payments to total personal income are generally greater outside Alaska as figure 1 illustrates. But the components of earnings (wages and salaries, other labor income, and proprietors' income) have similar percentage shares in Alaska and nationally.

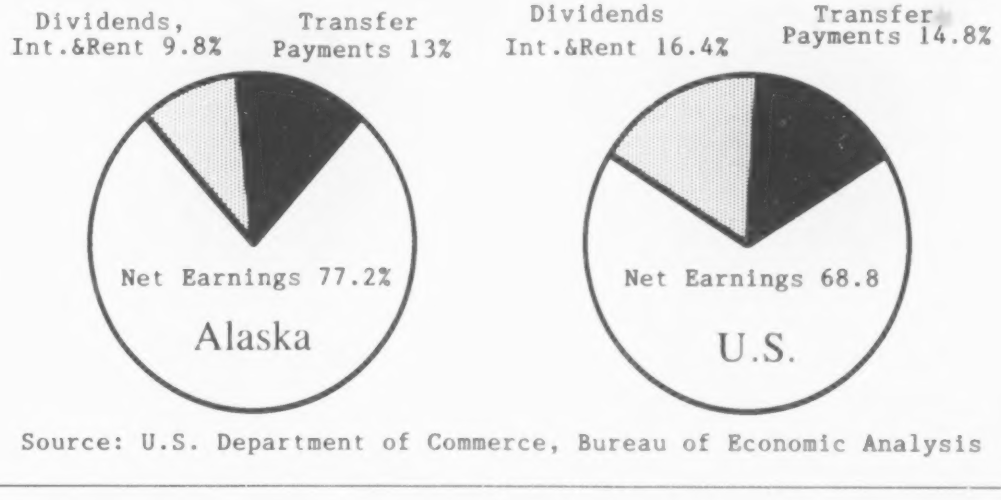
Geographic Comparisons of Personal Income

We will examine three geographic views of Alaska's personal income: census area data, a ranking of the 50 states, and a historical comparison between Alaska and the U.S. from 1970 to 1986.

A Look At Census Areas

The most current personal income data by census area is for 1984 (Table 2). During that year, Alaska's average per capita personal income was

Figure 1
Personal Income by Component, 1986



Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table 2
1984 Personal Income by Census Area

	Total Personal Income (millions of dollars)	Per Capita Income		
		Dollars	Percent of U.S. Average	Percent Change From 1983
Alaska	$8,771	$17,550	137%	1.0%
U.S.	3,016,317	12,772	100	9.3
Aleutian Islands	119	16,715	131	3.5
Anchorage Borough	4,349	19,188	150	2.4
Bethel	114	10,050	79	0.2
Bristol Bay Borough	23	20,472	160	5.4
Dillingham	55	10,852	85	-2.2
Fairbanks North Star Borough	1,293	20,764	163	1.3
Haines Borough	32	17,250	135	12.7
Juneau Borough	505	21,253	166	2.0
Kenai Peninsula Borough	499	13,237	104	2.1
Ketchikan Gateway Borough	232	18,138	142	-2.1
Kobuk[1]	60	11,822	93	1.9
Kodiak Island Borough	174	11,826	93	-8.9
MatSu Borough	420	14,197	111	-9.2
Nome	96	14,265	112	2.2
North Slope Borough	113	26,077	204	5.7
Prince of Wales-Outer Ketchikan	63	14,460	113	-1.2
Sitka Borough	120	16,090	126	0.9
Skagway-Yakutat-Angoon	56	16,124	126	8.4
Southeast Fairbanks	80	12,685	99	3.8
Valdez-Cordova	150	17,536	137	6.8
Wade Hampton	34	7,466	58	5.3
Wrangell-Petersburg	101	15,812	124	-12.9
Yukon-Koyukuk	81	9,537	75	-2.1

[1] Now the Northwest Arctic Borough

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Note: Not directly comparable with the data in Tables 3 and 4 due to revision of state personal income data after the release of census area data for 1984. Revised personal income data for census areas will not be available from the Bureau of Economic Analysis until April, 1988.

After 13 straight years at the top of the state per capita personal income standings, Alaska fell to the number three spot in 1986.

$17,550, 137% of the national average. The North Slope Borough ranked at the top of the Alaskan census areas with a per capita income of $26,077 while Wade Hampton had the lowest per capita income, $7,466. Although the majority of the census areas had per capita incomes above the national average, seven did not.

In general, Alaska's per capita personal income grew much more slowly than the nation as a whole from 1983 to 1984. Only the Haines Borough, at 12.7%, had growth above the national average and seven census areas showed declines.

Noncash sources of goods and services, which are important in many Alaskan rural census areas, are not included in personal income data. Also, many census areas with low per capita income have exceptionally high costs for energy, food, and other goods and services. For these reasons, caution is advised when attempting to use per capita personal income data to compare the standard of living between census areas of the state.

Table 3
1986 Per Capita Personal Income
Ranked By State

Rank	State	Per Capita Income (dollars)	Percent of U.S. Average	Percent Change From 1985
1	Connecticut	$19.208	133%	6.1%
2	New Jersey	18.284	126	6.2
3	**ALASKA**	17.744	123	-2.2
4	Massachusetts	17.516	121	6.9
5	New York	17.118	118	6.4
6	California	16.778	116	4.4
7	Maryland	16.588	115	4.6
8	New Hampshire	15.922	110	6.5
9	Illinois	15.420	107	4.6
10	Virginia	15.374	106	5.6
11	Colorado	15.113	105	2.1
12	Nevada	15.074	104	4.1
13	Delaware	15.010	104	5.2
14	Minnesota	14.737	102	4.6
15	Hawaii	14.691	102	6.1
16	Rhode Island	14.670	101	5.3
17	Washington	14.498	100	4.4
—	**U.S. AVERAGE**	14.461	100	4.3
18	Kansas	14.379	99	4.3
19	Florida	14.281	99	3.9
20	Michigan	14.064	97	3.4
21	Pennsylvania	13.944	96	3.9
22	Wisconsin	13.796	95	4.9
23	Nebraska	13.777	95	3.7
24	Ohio	13.743	95	3.9
25	Missouri	13.657	94	3.2
26	Texas	13.523	94	0.4
27	Wyoming	13.230	91	0.1
28	Georgia	13.224	91	5.4
29	Iowa	13.222	91	4.9
30	Arizona	13.220	91	3.5
31	Oregon	13.217	91	4.6
32	Indiana	12.944	90	4.0
33	Vermont	12.845	89	6.1
34	Maine	12.709	88	7.0
35	Oklahoma	12.368	86	1.3
36	North Dakota	12.284	85	1.9
37	North Carolina	12.245	85	5.5
38	Montana	11.904	82	8.4
39	South Dakota	11.850	82	6.2
40	Tennessee	11.831	82	5.4
41	Idaho	11.432	79	2.7
42	Louisiana	11.227	78	-0.3
43	Kentucky	11.129	77	2.9
44	Alabama	11.115	77	4.2
45	South Carolina	11.096	77	4.4
46	New Mexico	11.037	76	1.2
47	Arkansas	10.773	74	2.9
48	Utah	10.743	74	2.4
49	West Virginia	10.530	73	3.3
50	Mississippi	9.552	66	4.0

Source: U.S. Department of Commerce, Bureau of Economic Analysis

State Rankings

After 13 straight years at the top of the state per capita personal income standings, Alaska fell to the number three spot in 1986 (Table 3). The new leader is Connecticut, with a per capita income of $19,208, more than double the $9,552 of 50th-ranked Mississippi. At $17,744, Alaska was 23% higher than the national average of $14,461.

Alaska and Louisiana were the only two states to experience per capita income losses from the previous year. These states, along with Wyoming, Texas, New Mexico, and Oklahoma, were adversely affected by the declines in the oil industry, which depressed the growth of per capita income there. The New England and Mid-Atlantic states have had large gains in total personal income from growth in construction and in business and financial services. These gains, coupled with a small population increase, resulted in per capita income growth well above the U.S. average of 4.3% from 1985 to 1986.

Long-Term Trends: Alaska and the U.S.

Table 4 compares total and per capita personal income in Alaska to the U.S. average from 1970 to 1986. This data, which is not adjusted for inflation, shows Alaska contributed only a tiny fraction (0.2-0.3%) to the nation's total personal income and that Alaska's per capita income has been consistently higher than the U.S. average during this period. Both per capita and total personal income fell in Alaska in 1986.

Figure 2 plots the long-term per capita income data after adjustments for inflation have been made using the annual rate of change in the CPI-U for Anchorage and the U.S. city average. In real terms, Alaska's per capita income peaked in 1976 at $20,167 as a result of the oil pipeline boom. Three years of sharp declines followed. In 1983, at the height of oil revenue spending, a second peak was established at $19,558 and again three subsequent years of declines have been encountered. In contrast, the U.S. per capita income suffered minor setbacks in 1973-1975 and again from 1979-1982, but has been growing steadily for the past four years. The overall effect of these differing trends is to bring the Alaskan per capita income closer to the U.S. average.

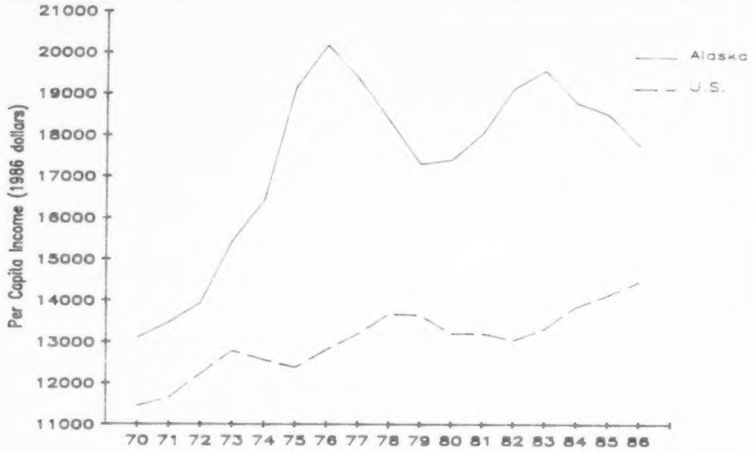
Table 4
Total and Per Capita Personal Income
Alaska and the United States 1970-1986

	Alaska Total (billions of dollars)	U.S. Total (billions of dollars)	Alaska Per Capita (dollars)	U.S. Per Capita (dollars)	Alaska Percent of U.S. Per Capita
1970	$1.52	$825.5	$4,986	$4,051	123%
1971	1.67	888.5	5,279	4,296	123
1972	1.83	976.1	5,610	4,664	120
1973	2.16	1,095.1	6,482	5,181	125
1974	2.63	1,204.1	7,635	5,644	135
1975	3.76	1,307.5	10,121	6,069	167
1976	4.52	1,446.1	11,499	6,647	173
1977	4.67	1,601.8	11,764	7,289	161
1978	4.81	1,806.2	11,947	8,133	147
1979	5.02	2,026.7	12,435	9,025	138
1980	5.59	2,252.0	13,797	9,910	139
1981	6.42	2,512.3	15,460	10,940	141
1982	7.70	2,660.9	17,281	11,470	151
1983	8.69	2,833.2	17,995	12,093	149
1984	9.08	3,101.4	17,970	13,115	137
1985	9.48	3,310.5	18,140	13,867	131
1986	9.47	3,486.2	17,744	14,461	123

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

The most turbulent swings in payroll levels from 1980 to 1986 occurred in the construction industry.

Figure 2
Alaska and U.S. Real Per Capita Income, 1980–1986



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

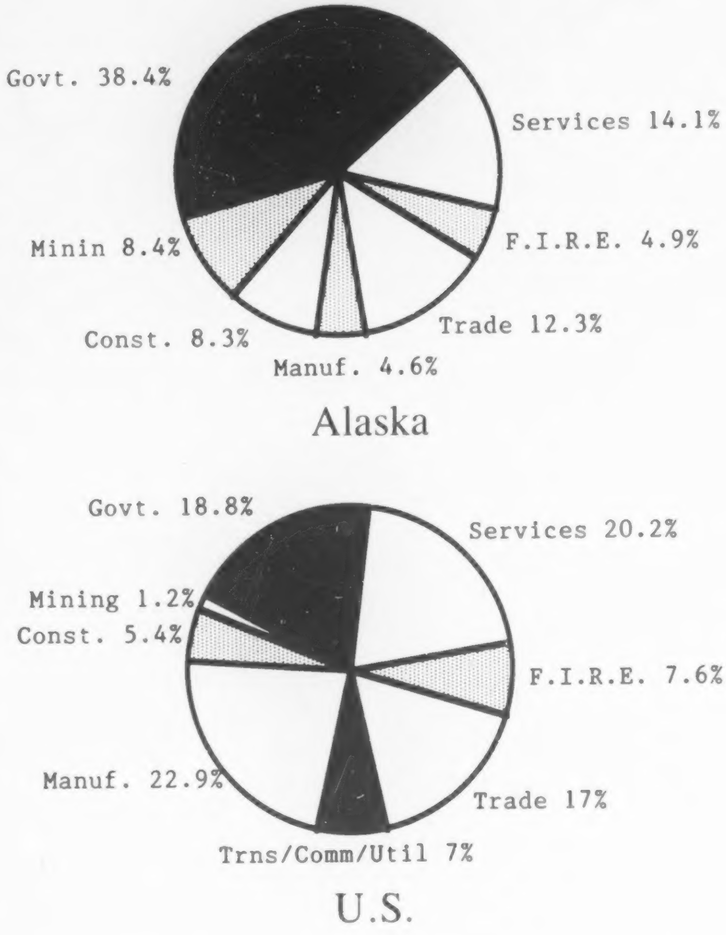
The government's portion of total payroll in Alaska is twice that it represents nationally.

SOURCES OF WAGES AND SALARIES

This section is broken into two segments: the first uses data from the U.S. Department of Commerce to compare the industry distribution of wages and salaries in Alaska to the distribution nationally. Though the national statistics are the average of all states and some states have industry distribution patterns similar to Alaska's the comparison demonstrates Alaska's economic uniqueness. The second segment uses Alaska Department of Labor data and provides Alaska's industry and regional wage and salary trends from 1980 to 1986.

Because the data in each section comes from different sources they are not directly comparable.

Figure 3
Alaska and U.S. Payroll by Industry, 1986



Source U.S. Department of Commerce, Bureau of Economic Analysis

2/ Payroll does not include farm and agricultural services.

Table 5
Governments Share of Total Payroll
Alaska and the U.S., 1986

	Alaska Percent of Total	U.S. Percent of Total
Federal, civilian	7.5%	4.0%
Military	7.4	2.0
State and local	23.4	12.7
Total Government	38.3	18.7

Most of the decline in the average monthly wage is due to the reduction of the number of hours worked per month.

Alaska/National Wage and Salary Comparisons

Figure 3 illustrates the relative share each industry or government sector represents of total payroll figures for Alaska and the nation. Most striking are the differences in the level of government and manufacturing payrolls. Alaska's manufacturing industry represents a relatively small share of total payroll compared to the share it represents nationally, but the governments portion of total payroll in Alaska is twice that it represents nationally. All segments of government represent a higher share than they do nationally as Table 5 indicates:

Another significant difference between Alaska and the nation is the relative level of the mining industry payroll. In Alaska over 8% of total payroll is accounted for by the mining industry (primarily related to the oil and gas industry) while this figure is just over 1% nationally. (To see comparisons of Alaska and other oil states refer to *Alaska Economic Trends*, December 1986).

Table 6
Alaska Total Payroll
By Industry 1980-1986
(in millions of 1986 dollars)

Industry	1980	1981	1982	1983	1984	1985	1986	Percent Change 80-86	Percent Change 1980	1986
Mining	$384	$520	$499	$485	$512	$573	$579	50.7%	8%	9%
Construction	537	678	892	1,042	932	779	543	1.1	11	9
Manufacturing	390	355	336	325	300	299	303	-22.5	8	5
Transportation	632	692	714	707	689	661	602	-4.7	13	10
Wholesale Trade	180	206	236	265	279	278	248	37.7	4	4
Retail Trade	416	468	527	598	626	624	562	35.0	8	9
Fin.-Insurance & R.E.	181	195	231	267	293	308	307	69.3	4	5
Services and Misc.	641	744	888	950	991	982	902	40.8	13	15
Federal Government	468	480	473	502	514	494	502	7.4	9	8
State Government	521	553	600	647	640	697	689	32.2	11	11
Local Government	585	637	717	788	836	891	898	53.6	12	15
Total	4,935	5,526	6,112	6,579	6,612	6,587	6,134	24.3	100	100

Source: Alaska Department of Labor, ES-202 files.

Note: Adjusted to 1986 dollars with the annual Anchorage CPI-U

Alaska's Wage and Salary Trends

The wage and salary data from the Alaska Department of Labor has been estimated to represent 70% of total personal income and is a good indicator of the total purchasing power of Alaskans. This data does not, however, include military payroll figures. The self employed are not counted among wage and salary employment.

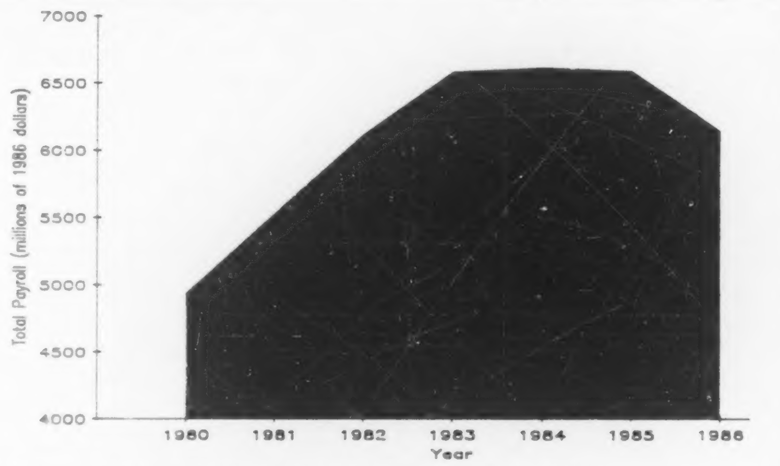
From the period of 1980 to 1986 wages and salaries (total payroll) in the state increased over 24% (adjusted to 1986 dollars). Total payroll did not, however, peak in 1986. It peaked in 1984 as figure 4 illustrates. From 1980 to 1984 total payroll increased by over one-third and provided the largest share of the increases in personal income. The additional purchasing power of workers in the basic industries during this period provided an enormous impetus for the expansion of firms providing a variety of goods and services.

By the end of 1985 total payroll had declined less than -1.0%, but over half the industries experienced payroll declines. The decline picked up pace in 1986 resulting in wage and salary declines of over $450 million, a 7% drop. If it were not for payroll increases in government the decreases would have been more severe.

The most turbulent swings in payroll levels from 1980 to 1986 occurred in the construction industry. In 1980 total construction payroll was $537 million increasing to over one billion dollars in 1983 and plunging to $542 million in 1986 (all figures are in 1986 dollars). These payroll declines were a result of falling employment levels and the decline in the average monthly wage (average monthly wage data will be presented later in this article).

Declines in the total payroll of the manufacturing industry from 1980 to 1985 was the result of a moderate decline in the average monthly wage and notable declines in employment levels of the seafood processing and pulp and lumber sectors. These sectors began a growth period in 1986 as reflected in the payroll figures. Refer to Table 6 for industry details.

Figure 4
Alaska's Nonagricultural Payroll, 1980 – 1986



Source: Alaska Department of Labor, Research & Analysis.

Table 7
Alaska
Total Payroll by Census Area
(in millions of 1986 dollars)

Census Area	1980	1981	1982	1983	1984	1985	1986	Percent Change 80-86	Percent of State 1980	Percent of State 1986
Aleutian Islands	$76	$77	$71	$75	$69	$72	$76	0.4%	1.5%	1.2%
Anchorage	2.250	2.493	2.799	3.060	3.156	3.175	3.015	34.0	45.6	49.2
Bethel Census Area	64	70	77	89	87	85	84	32.4	1.3	1.4
Bristol Bay Borough	20	22	25	24	25	25	27	39.4	0.4	0.4
Dillingham Census Area	39	42	41	48	44	44	43	12.6	0.8	0.7
Fairbanks North Star Borough	647	705	788	828	823	858	768	18.8	13.1	12.5
Haines Borough	11	12	14	15	18	19	23	111.9	0.2	0.4
Juneau Borough	303	333	351	375	376	377	353	16.5	6.1	5.7
Kenai Peninsula Borough	257	280	302	312	333	349	309	20.0	5.2	5.0
Ketchikan Gateway Borough	165	149	156	167	151	153	155	-5.9	3.3	2.5
Kodiak Island Borough	107	99	111	128	113	99	96	-10.5	2.2	1.6
Matanuska Susitna Borough	76	90	112	133	166	168	158	107.8	1.5	2.6
Nome	47	51	55	61	65	65	63	35.1	1.0	1.0
North Slope Borough	352	547	611	653	591	538	413	17.6	7.1	6.7
Northwest Arctic Borough	34	42	43	44	45	44	42	22.5	0.7	0.7
Prince of Wales/Outer Ketch.	36	39	39	43	44	43	45	25.2	0.7	0.7
Sitka Borough	104	106	103	95	86	81	82	-20.7	2.1	1.3
Skagway-Yakutat-Angoon	24	27	35	41	32	31	34	44.6	0.5	0.6
Southeast Fairbanks	24	26	26	29	30	31	37	54.1	0.5	0.6
Valdez-Cordova Census Area	116	127	127	117	115	113	103	-11.7	2.4	1.7
Wade Hampton	17	21	22	20	22	22	23	35.4	0.3	0.4
Wrangell-Petersburg	68	68	65	70	60	63	60	-11.6	1.4	1.0
Yukon-Koyukuk	82	84	90	92	89	65	63	-23.2	1.7	1.0
Miscellaneous	18	18	49	57	72	68	60	233.8	0.4	1.0
TOTAL	4.935	5.526	6.112	6.579	6.612	6.587	6.134	24.3	100.0	100.0

Source: Alaska Department of Labor, ES-202 files.

Note: Adjusted to 1986 dollars with the annual Anchorage CPI-U

Geographic Distribution of Payroll

The Alaska Department of Labor wage and salary data contained in Table 7 gives an indication of the total purchasing power of Alaska's 23 census areas.

Average Monthly Wages

Average monthly wages are computed by dividing total yearly payroll by average yearly employment and then further dividing by 12. (Average monthly wages by industry adjusted to 1986 dollars are shown in Table 8.) The data is good for determining the average wage cost to a firm per job, but many overstate or understate the actual monthly earnings per worker. For example, industries characterized by high proportions of part-time workers will show average monthly wage levels appreciably below the actual monthly levels of regular full-time employees in these industries and of those industries that have few part-time workers. The retail trade and services industries are prime examples of this situation.

The opposite effect characterizes industries with low proportions of part-time workers, or industries which typically schedule heavy weekend and overtime work. Prime examples of this situation are the construction and oil and gas industries (Oil and gas is the major component of the mining industry).

For specific occupational wages for Alaska see Alaska Department of Labor's annual *Alaska Wage Rates* publication. For additional data concerning wages and salaries contact Department of Labor, Research and Analysis section.

The data in Table 8 shows that average monthly wages and salaries in 1986 were below 1980 wages (adjusted for inflation). This occurred after wages fell $277 per month from the 1985 pay levels. All sectors of the economy felt the impacts of declining oil prices in 1986 and the average monthly wage declines reflect this.

Table 8
Alaska Average Monthly Wage
By Industry
(in 1986 dollars)

Industry	1980	1981	1982	1983	1984	1985	1986	Percent Change 80-86	Ratio to State Average 1986
Mining	$4,797	$4,754	$4,705	$4,945	$4,908	$5,255	$5,069	5.67%	2.2
Construction	4,211	4,377	4,387	4,193	3,813	4,857	2,431	-42.27	1.1
Manufacturing	2,326	2,128	2,176	2,251	2,212	1,977	2,082	-10.49	0.9
Transportation	3,099	3,193	3,224	3,176	3,071	3,074	2,687	-13.29	1.2
Wholesale Trade	2,718	2,669	2,714	2,757	2,676	2,862	2,369	-12.85	1.0
Retail Trade	1,459	1,457	1,440	1,492	1,458	1,461	1,263	-13.41	0.6
Finance-Ins. & R.E.	1,973	1,969	2,113	2,188	2,203	2,262	2,202	11.60	1.0
Services & Misc.	1,809	1,905	2,028	2,032	1,955	1,920	1,711	-5.43	0.8
Federal Government	2,195	2,278	2,233	2,361	2,368	2,306	2,384	8.61	1.1
State Government	2,880	2,826	2,833	2,912	2,813	2,923	2,845	-1.20	1.3
Local Government	2,400	2,485	2,607	2,669	2,677	2,728	2,738	14.06	1.2
State Average	2,451	2,516	2,560	2,600	2,506	2,546	2,269	-7.42	1.0

Sources: Alaska Department of Labor, ES-202 files.

Note: Adjusted to 1986 dollars with the annual Anchorage CPI-U

Table 9
Alaska Average Monthly Wage
By Census Area
(in 1986 dollars)

Census Area	1980	1981	1982	1983	1984	1985	1986	Percent Change 80-86	Ratio to State Average 1986
Aleutian Islands	$1,974	$1,873	$1,906	$1,861	$1,881	$1,842	$2,055	4.09%	0.9
Anchorage Borough	2,421	2,435	2,457	2,496	2,438	2,522	2,278	-5.89	1.0
Bethel Census Area	1,528	1,738	1,839	1,917	1,918	1,897	1,842	20.55	0.8
Bristol Bay Borough	2,205	2,439	2,265	2,136	2,279	1,909	2,127	-3.54	0.9
Dillingham Census Area	2,089	2,080	2,065	2,364	1,978	1,925	1,916	-8.28	0.8
Fairbanks North Star Borough	2,593	2,586	2,651	2,683	2,521	2,636	2,229	-14.05	1.0
Haines Borough	1,625	1,849	1,964	2,120	2,174	2,013	2,680	64.91	1.2
Juneau Borough	2,353	2,442	2,433	2,488	2,374	2,491	2,199	-6.53	1.0
Kenai Peninsula Borough	2,579	2,577	2,578	2,527	2,463	2,579	2,132	-17.35	0.9
Ketchikan Gateway Borough	2,373	2,244	2,312	2,346	2,235	2,110	2,209	-6.90	1.0
Kodiak Island Borough	1,943	1,905	2,088	2,185	1,954	1,671	1,729	-11.00	0.8
Matanuska-Susitna Borough	2,023	2,085	2,175	2,118	2,167	2,147	1,934	-4.42	0.9
Nome	1,900	1,960	2,147	2,144	2,121	2,109	1,997	5.11	0.9
North Slope Borough	4,825	5,207	5,309	5,294	5,162	5,710	3,695	-23.42	1.6
Northwest Arctic Borough	2,034	2,044	1,948	2,207	2,179	2,090	1,991	-2.09	0.9
Prince of Wales/Outer Ketch.	2,402	2,199	2,203	2,351	2,239	2,004	2,129	-11.35	0.9
Sitka Borough	2,337	2,433	2,438	2,319	2,221	2,011	2,105	-9.94	0.9
Skagway-Yakutat-Angoon	1,770	1,841	2,032	2,285	1,841	1,670	2,097	18.47	0.9
Southeast Fairbanks	1,897	1,975	1,846	1,955	1,928	1,754	2,359	24.33	1.0
Valdez-Cordova	2,824	2,824	2,777	2,642	2,641	2,776	2,351	-16.75	1.0
Wade Hampton	1,522	1,628	1,687	1,670	1,649	1,515	1,655	8.76	0.7
Wrangell-Petersburg	1,945	2,092	2,128	2,292	2,110	2,206	2,118	8.88	0.9
Yukon-Koyukuk	2,758	2,781	2,733	2,752	2,602	2,311	2,144	-22.28	0.9
Unknown Area	1,375	1,181	2,692	3,134	3,490	3,047	2,602	89.17	1.1
State Average	2,451	2,516	2,560	2,600	2,506	2,546	2,269	-7.42	1.0

Sources: Alaska Department of Labor, ES-202 files.

Note: Adjusted to 1986 dollars with the annual Anchorage CPI-U

Table 10
1987 Lower Living Standard Income Level (LLSIL)

	Metropolitan Alaska		Nonmetropolitan Alaska	
Family Size	Income Criteria for 100% of the LLSIL	Income Criteria for 70% of the LLSIL	Income Criteria for 100% of the LLSIL	Income Criteria for 70% of the LLSIL
1	$ 9.400	$ 6.580	$ 8.871	$ 6.210
2	15.414	10.790	14.529	10.170
3	21.157	14.810	19.943	13.960
4	26.129	18.290	24.629	17.240
5	30.829	21.580	29.057	20.340
6	36.057	25.240	33.986	23.790
Add for each additional family member:	5.229	3.660	4.929	3,450

Source: Employment and Training Reporter. Vol. 18. No. 48. Aug. 12. 1987. p. 1289.

Table 11
1987 Poverty Income Guidelines

Family Size	Alaska	All States Except Alaska and Hawaii
1	$6.860	$5,500
2	9.240	7,400
3	11.620	9,300
4	14.000	11,200
5	16.380	13,100
6	18.760	15,000
Add for each additional family member:	2.380	1,900

Source: Employment and Training Reporter. Vol. 18. No. 48. Aug. 12. 1987. p. 1291.

Workers in the construction sector, in particular, have had the most dramatic reduction in both the number of hours worked and hourly pay from the levels during the peak construction year of 1983. Refer to Table 8 for industry details.

Most of the decline in the average monthly wage is due to the reduction of the number of hours worked per month and to some extent the decline in hourly pay. For specific hours and earnings data see *Alaska Economic Trends*.

Alaska's Geographic Average Monthly Wage Distribution

Table 9 contains detailed average monthly wage data for Alaska's 23 census areas. Generally, those areas that contain high concentrations of oil and gas, construction or government employment tend to have a greater average monthly wage than those areas with small concentrations of those industries.

In addition, the urban areas of the state tend to have higher monthly wages than the rural areas. In some rural areas, wage and salary employment is scarce. In this case subsistence and other noncash sources of goods and services become the primary means of livelihood. Hence, the average monthly wage data is not a good overall measure of the standard of living between areas.

Urban areas of the state tend to have higher monthly wages than the rural areas.

Poverty Thresholds

Two measures of poverty are the Lower Living Standard Income Level (LLSIL) and the Poverty Income Guidelines published every year in the Federal Register and the Employment and Training Reporter. They are used to determine whether individuals and families meet eligibility criteria under the Job Training Partnership Act (JTPA). The LLSIL is based on the urban family budget, which was last revised in 1981. The 1987 LLSIL figures, adjusted for inflation by the consumer price index, can be found in Table 10. Poverty income guidelines are calculated by the Census Bureau and are based on an index adopted from the Department of Agriculture's Economy Food Plan. Table 11 lists the 1987 poverty guidelines for Alaska.

Summary

This article has provided many of the most common income measures available for Alaska. Overall these statistics show that Alaska's total personal income grew enormously during the early 1980s, but by the mid 1980s income level began to fall. In 1986 they fell sharply and continued into 1987. Most recent preliminary data from the Alaska Department of Labor shows total wages and salaries in the first quarter of 1987 fell 9.8% compared to first quarter 1986 figures.

Table 12 contains some fundamental information concerning the income measures discussed in this article and others the Department of Labor produces.

Table 12

A Summary of Income Measures

	Personal/Per Capita Income	Nonagricultural Wage and Salary Earnings	Income Poverty Guidelines	Lower Level Standard Income Level (LLSIL)
Description:	Estimates of total personal and per capita income	Total payroll and average monthly wage for nonagricultural workers	Estimated income used to determine program eligibility	Estimated income used to determine program eligibility
Responsible Agency:	U.S. Department of Commerce, Bureau of Economic Analysis	Alaska Department of Labor, Research & Analysis	U.S. Department of Commerce, Bureau of Census	U.S. Department of Labor, Employment and Training Administration
Source Of Data:	Estimates of wages, salaries, dividends, proprietors' income, rental income, etc.	Reports from employers on employment and wages covered by unemployment insurance	Survey and economy food plan	Urban Family Budget
Time Period:	Quarterly Annually	Quarterly Annually	Annually	Annually
Industry Detail:	Major Industry	None	None	Major Industry
Geographic Detail:	Alaska 23 Census Areas	Alaska 23 Census Areas	Alaska Balance of State (Rural)	Anchorage (Urban)
Published In:	Survey of Current Business	Statistical Quarterly	Federal Register	Federal Register

	Workers With Wages	Current Employment Statistics Hours and Earnings	Wage Rates for Selected Occupations
Description:	20% sample of annual workers with covered wages, mean and median incomes	Sample-based estimates of average hours worked, average weekly wages, and average hourly wages for production workers	High, low, and average hourly wage rates for over 200 occupations
Responsible Agency:	Alaska Department of Labor, Research & Analysis	Alaska Department of Labor, Research & Analysis	Alaska Department of Labor, Research & Analysis
Source Of Data:	Reports from employers on employment and wages covered by unemployment insurance	Current Employment Statistics program, a voluntary sample of employers	Voluntary mail and telephone survey
Time Period:	Quarterly Annually	Monthly Annually	Annually
Industry Detail:	Major Industry	Major Industry	None
Geographic Detail:	Alaska	Alaska	Alaska - 6 Regions
Published In:	UI Actuarial Report	Alaska Economic Trends	Alaska Wage Rates

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Note:

[1] Personal income is measured after deduction for social security, government retirement, and other social insurance programs, but before deductions for income and personal taxes. Income from dividends, self-employed earnings, and businesses are all included in the measure of personal income. Estimates of proprietors' income are derived from federal tax return data. Earnings from wages and salaries, other labor income and proprietors' income are also residency adjusted by the Bureau of Economic Analysis.

Alaska's Employment Scene

By Neal Fried

The good news for the Alaskan economy in July was that unemployment fell below the double digit level for the first time in 1987, coming in at 9.7% (Table 9). The unemployment rate also represented an improvement over last year's July rate of 10.2%. However, this change cannot be attributed to an improving employment picture; instead it is a result of a large exodus of the unemployed. In addition to the exodus, during a prolonged recession such as Alaska is presently experiencing, a certain percentage of the long-term unemployed drop out of the labor force and are no longer counted. There could be a silver lining in this otherwise dreary picture of attrition, because as the unemployed leave, those who remain active in the labor market may find competition not quite as fierce for the jobs which become available.

Unemployment fell below the double digit level for the first time in 1987.

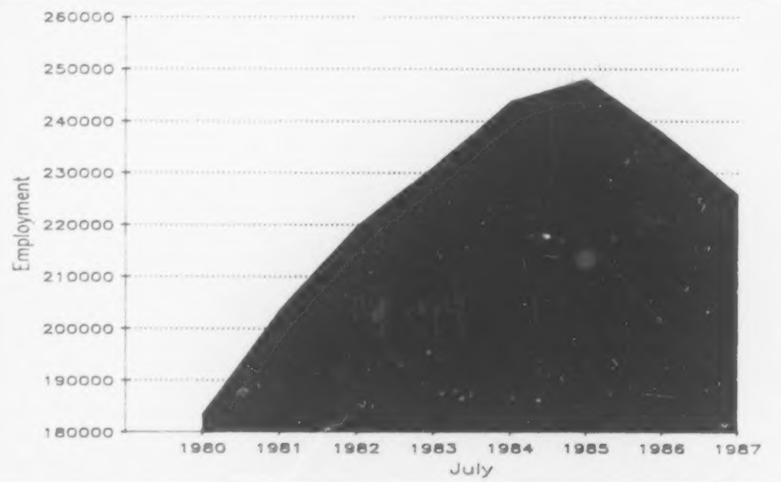
The bad news is employment gains in July were lackluster at best. The 3.1% increase in July's wage and salary employment represented the smallest seasonal gain since 1979—an indication of a continuing weak labor market (Tables 1-7). The picture is more bleak if year-ago comparisons are made. There were 11,900 fewer jobs in July of this year compared to the same time last year. If July's levels are compared to earlier years it becomes apparent that three to four years of employment growth have vanished (Fig. 1). Employment has not been at this level since somewhere between July of 1982 and July of 1983.

The Good News

The **fishing industry** led the seasonal upsurge in July and in the over-the-year gains. The number of jobs in seafood processing grew by 6,700 in July and posted an over-the-year gain of 300, making it this year's premier economic performer in a year where there are few.

Fewer salmon were caught through July of this year, but the bottomfish fishery kept employment numbers high. The harvest from the state's richest salmon waters, Bristol Bay, was off slightly compared to year-ago levels, while Upper Cook Inlet's sockeye run set a new record. The run was so large that some Cook Inlet processors were forced to send fish elsewhere to be processed. This represents a reversal in the historical trend for Cook Inlet processors who usually process the overflow from Bristol Bay and elsewhere in the state. The Lower Cook Inlet and Southeast salmon fisheries were very weak. Luckily for fishermen, prices this year were high for all species. In some areas the price for pink salmon almost doubled from last years price of 21 cents a pound. The higher prices paid for salmon may more than make up for the smaller harvest. Fish processing workers earned more per week during July because of longer hours worked (Table 8). The average weekly earnings in food and kindred products was up $46 over-the-month and nearly $15 over-the year.

Figure 1
Alaska July Employment, 1980 – 1986



Early in this year's salmon season there was concern Alaska's fish processors would experience labor shortages. An improved national employment picture and news about

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	p/ 7/87	r/ 6/87	7/86	Changes From: 6/87	Changes From: 7/86
Nonag. Wage & Salary	226,000	219,300	237,900	6,700	-11,900
Mining	8,300	8,200	9,000	100	-700
Construction	14,200	13,400	15,800	800	-1,600
Manufacturing	21,900	15,100	21,600	6,800	300
Food & Kindred Prod.	15,500	8,800	15,200	6,700	300
Lumber & Paper Prod.	3,200	3,200	3,000	0	200
All Other Mfg.	3,200	3,100	3,400	100	-200
Trans. Comm. & Utilities	19,000	18,800	19,500	200	-500
Trucking & Whseing.	2,400	2,100	2,400	300	0
Water Transportation	1,300	1,300	1,600	0	-300
Air Transportation	5,900	5,900	5,800	0	100
Other Trans. Comm. & Utilities	9,400	9,500	9,700	-100	-300
Trade	43,800	43,200	46,200	600	-2,400
Wholesale	7,700	7,700	8,500	0	-800
Retail	36,100	35,500	37,700	600	-1,600
Gen. Mer. & Apparel	5,400	5,300	5,500	100	-100
Food Stores	6,100	6,200	6,300	-100	-200
Eating & Drinking Pl.	13,600	13,300	14,000	300	-400
Other Retail Trade	11,000	10,700	11,900	300	-900
Finance-Ins. & R.E.	11,900	12,000	13,000	-100	-1,100
Services & Misc.	43,400	43,400	46,700	0	-3,300
Government	63,500	65,200	66,100	-1,700	-2,600
Federal	19,000	18,900	18,500	100	500
State	18,100	18,300	20,600	-200	-2,500
Local	26,400	28,000	27,000	-1,600	-600

Prepared in cooperation with the U.S. Burea of Labor Statistics. Government includes teachers in primary and secondary schools. and personnel employed by the University of Alaska.

Benchmark date March 1986.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

Alaska's poor economy discouraged job seekers from coming to Alaska. Canneries were particularly concerned because college students and other summer laborers were not showing up in their traditionally large numbers. Labor shortages in Bristol Bay, Valdez and the Kenai Peninsula did develop, but in many cases they proved to be temporary bottlenecks. The process of finding the necessary work force was eased somewhat when it became apparent to job seekers that fewer employment opportunities existed in other industries. The Alaska Department of Labor, working closely with many fish processors, helped overcome the labor shortages by actively recruiting workers for the industry. An example of this was the successful recruitment of cannery workers from Alaska's Interior communities.

Due to improving mineral prices, **hard rock mining** has become one of the few niches of the economy which is posting strong growth. Employment grew by over 200 over-the-year. A sizable percentage of this came from the development of Greens Creek on Admiralty Island in Southeast and the Red Dog deposit in the newly formed Northwest Arctic Borough. Drilling activity has begun again at the Grant Mine (gold) in Fairbanks which had been closed since January 1986. Evaluation and development of already discovered deposits has also begun this year on numerous other sites throughout the state.

The **timber and paper products** employment was flat over-the-month although it continues to register over-the-year growth. The timber industry received an additional shot in the arm recently, when Koncor negotiated a contract with the Chinese for logs on Afognak Island. It will still take years before timber related employment equals the peak levels in the early 1970s.

Alaska's **visitor industry** is getting mixed reviews for the 1987 season. Employment levels in industries tourism most heavily impacts such as hotels and motels, transportation and eating and drinking establishments all are showing losses compared to year-ago levels. Airport and border traffic counts are also down. On the other hand some areas are reporting larger numbers of visitors. Denali National Park reports that its visitors counts are up by 9.8% and the number of cruise ship arrivals has also increased.

Some of this discrepancy could be attributable to the type of visitor arriving in Alaska in 1987. The visitor who arrives in Alaska to do strictly business and the visitors who mix business with pleasure have declined measurably over the past year because of the decline in economic activity. According to the Alaska Division of Tourism they represent 29% of all visitors to the state. As a commercial center of the state, Anchorage has felt the brunt of the decline of this type of visitors. According to the Anchorage Convention and Visitors Bureau, more than 50% of Anchorage's visitors are either business visitors or they combine business with pleasure. The visitors who come to visit relatives have surely fallen because there are fewer residents today.

In contrast to the decline in business visitors, the number of vacationers seems to be holding steady or perhaps growing. This may explain why there are such mixed signals in this industry today.

The Rest of the Economy

The remainder of Alaska's economy is still experiencing hefty losses compared to July 1986 activity. **Construction** and oil employment remains unchanged from past months. Construction employment losses continue to moderate compared to last year's declines. July's employment was down 10% and the cumulative value of construction activity was down 44%. According to the Dodge Report, through July 1987 Alaska has suffered the largest percentage

Table 2
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/	r/		Changes From:	
	7/87	6/87	7/86	6/87	7/86
Nonag. Wage & Salary	106,450	105,800	112,400	650	-5,950
Mining	3,300	3,400	3,550	-100	-250
Construction	7,750	7,600	8,500	150	-750
Manufacturing	3,750	2,900	3,650	850	100
Food & Kindred Prod.	1,850	1,000	1,700	850	150
Other Mfg.	1,900	1,900	1,950	0	-50
Trans. Comm. & Utilities	9,600	9,550	10,050	50	-450
Trucking & Whseing.	1,500	1,500	1,650	0	-150
Water Transportation	300	300	350	0	-50
Air Transportation	3,100	3,000	3,150	100	-50
Other Trans. Comm. & Utilities	4,700	4,750	4,900	-50	-200
Trade	24,950	24,650	26,450	300	-1,500
Wholesale	5,600	5,550	6,300	50	-700
Retail	19,350	19,100	20,150	250	-800
Gen. Merchandise	1,800	1,800	1,850	0	-50
Food Stores	3,050	3,000	3,050	50	0
Eating & Drinking Pl.	7,650	7,550	8,000	100	-350
Other Retail Trade	6,850	6,750	7,250	100	-400
Finance-Ins. & R.E.	7,750	7,800	8,250	-50	-500
Services & Misc.	24,050	24,200	26,000	-150	-1,950
Government	25,300	25,700	25,950	-400	-650
Federal	10,700	10,700	10,350	0	350
State	6,350	6,550	7,000	-200	-650
Local	8,250	8,450	8,600	-200	-350

Table 3
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/	r/		Changes From:	
	7/87	6/87	7/86	6/87	7/86
Nonag. Wage & Salary	113,150	112,650	119,350	500	-6,200
Mining	3,300	3,400	3,550	100	-250
Construction	8,150	8,000	9,000	150	-850
Manufacturing	3,850	2,950	3,750	900	100
Trans. Comm. & Utilities	10,300	10,250	10,700	50	-400
Trade	26,600	26,300	28,050	300	-1,450
Finance-Ins. & R.E.	8,300	8,350	8,800	-50	-500
Services & Misc.	25,200	25,350	27,350	-150	-2,150
Government	27,450	28,050	28,150	-600	-700

decline in the nation in the number of residential housing permits issued.

The **oil industry** has found some reprieve because of relatively high and stable prices. A flurry of activity in anticipation of production in the Endicott field is helping to boost the industry's employment. The Endicott field, the first offshore arctic oil field to be developed, will be brought on line in November. A labor force of approximately 100 will operate the field. During the past month the industry has winced a bit because spot market prices have softened—clearly illustrating the fact that stable oil prices remain elusive.

Construction and oil's largest declines are behind them, but their past losses impacted the secondary sector of the state in a big way. The secondary sector's declines are led by services and followed by trade. **Finance-insurance and real estate** (FIRE), though a much smaller industry is also sustaining big losses. For trade and FIRE, July's employment has fallen back to 1983 levels. The service sector's employment has withstood the downturn slightly better, sliding back to 1984 levels. Medical services employment, has inched up slightly and is responsible for services moderate overall declines.

The weakness in these industries is also illustrated by their seasonal performance. FIRE's employment fell in July—the first time in eight years that this industry failed to climb in July. The employment gain in services could only be classified as anemic compared to past years.

Instead of cushioning the present decline in the state's economy the **government sector** has exacerbated the situation. During past recessions state and local government provided relief to the economy, but the present recession has embraced government. State and local government declines overwhelmed the federal government over-the-year advances, for a net loss of 2,600 jobs. This trend is likely to continue through the remainder of the year.

The Geographic Employment Picture

Anchorage

Positive economic indicators for Anchorage are difficult to find. Seven of eight major industry categories are on the negative side of the employment ledger. Net employment lost from last July was 5,950. The only industry to post over-the-year employment growth was manufacturing which was boosted into the black in July by the fish processors. Total wage and salary employment for July of 1987 fell to between July 1982 and July 1983 levels. The number of residential building permits fell below any year since 1970 and business bankruptcies climbed 33% above year-ago levels.

Seasonally the picture looks slightly better. Half of the industries posted gains and total employments net gain was 650, which represents a weak seasonal increase.

Anchorage's July unemployment rate of 7.9% represents a seasonal and over-the-year improvement. But like the statewide employment picture the improvement is not a signal of an improving economy but instead is a phenomenon of out-migration of the unemployed and some dropping out of the labor market. There appears to be a consensus in Anchorage that the bottom of the economy has been reached and by next year Anchorage will begin to climb out of the present recession.

Another one of Anchorage's economic indicators brought mixed news. The Anchorage consumer price index for the first half of the year (January-June) was released and indicated prices measured by the consumer price index for all urban consumers had only increased 0.1%, and the consumer price index for wage earners and clerical workers declined 0.4%. These represented the smallest increases of all 91 cities measured in the country and compares to 3% for the average U.S. city. The small increase in prices on one hand and deflation on the other, is a clear reflection of the economy—in particular the depressed housing market. Housing costs fell 1.4% during the first half of 1987. (For historical information on Anchorage's consumer price index see Cost of Living article this issue.)

Fairbanks

Fairbanks' economic picture though mixed is generally bleak. Employment posted small seasonal increases and a 7% decline over last year. Fairbanks' labor force trends are similar to the state's, showing an improvement in the unemployment rate both seasonally and over-the-year. Mining is the only industry where more people are employed this year than last because of the revival taking place in this industry. Like the statewide picture the secondary industries are feeling the brunt of the losses.

Layoffs were announced by Fairbanks Memorial Hospital, the City of Fairbanks, and possibly the Fairbanks North Star Borough. The significance of these layoffs lies in the fact that all three of these employers were stable in the past.

On a brighter note, it appears Fairbanks' tourism is enjoying a good year. Though incoming border crossings and airport passenger numbers are down in Fairbanks, their percent losses narrowed from double digit levels earlier in the year. In July border crossings were 1% below a year ago while Fairbanks airport passenger counts were 2% below last June. Informal surveys of Fairbanks' tourist industry operators and bed tax collections corroborates the indication that tourism in Fairbanks is holding its own when compared to 1986.

Construction is still suffering losses, but its biggest declines occurred last year. The construction projects on Fort Wainwright have not yet kicked in enough new activity to push this year's levels above 1986, because many of them are just beginning to get off the ground. By the end of the year the military related construction activity may push 1987 ahead of 1986.

According to the latest counts (July)

Table 4
Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

	p/ 7/87	r/ 6/87	7/86	Changes From: 6/87	7/86
Nonag. Wage & Salary	27,300	27,250	29,350	50	-2,050
Mining	150	150	100	0	50
Construction	1,850	1,750	2,250	100	-400
Manufacturing	700	650	700	50	0
Trans. Comm. & Utilities	2,850	2,850	3,000	0	-150
Trucking & Whseing.	350	400	350	-50	0
Air Transportation	1,050	1,050	1,050	0	0
Other Trans. Comm. & Utilities	1,450	1,400	1,600	50	-150
Trade	5,900	5,900	6,350	0	-450
Wholesale	950	900	1,000	50	-50
Retail	4,950	5,000	5,350	-50	-400
Gen. Mer. & Apparel	550	500	550	50	0
Food Stores	700	700	750	0	-50
Other Retail Trade	3,700	3,800	4,050	-100	-350
Finance-Ins. & R.E.	1,000	1,050	1,150	-50	-150
Services & Misc.	6,050	5,900	6,450	150	-400
Government	8,800	9,000	9,350	-200	-550
Federal	3,100	3,100	3,000	0	100
State	3,300	3,400	3,750	-100	-450
Local	2,400	2,500	2,600	-100	-200

Table 5
Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/ 7/87	r/ 6/87	7/86	Changes From: 6/87	7/86
Nonag. Wage & Salary	31,400	31,450	34,200	-50	-2,800
Mining	300	300	250	0	50
Construction	2,100	1,950	2,500	150	-400
Manufacturing	700	650	700	50	0
Trans. Comm. & Utilities	3,250	3,200	3,350	50	-100
Trade	6,300	6,350	6,800	-50	-500
Finance-Ins. & R.E.	1,100	1,100	1,250	0	-150
Services & Misc.	6,700	6,500	7,100	200	-400
Government	10,950	11,400	12,250	-450	-1,300

Table 6
Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

	p/ 7/87	r/ 6/87	7/86	Changes From: 6/87	Changes From: 7/86
Nonag. Wage & Salary	30,850	29,350	32,250	1,500	-1,400
Construction	1,150	1,100	1,400	50	-250
Manufacturing	5,200	4,300	5,250	900	-50
Food & Kindred Prod.	2,000	1,150	2,200	850	-200
Lumber & Paper Prod.	3,000	2,950	2,850	50	150
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	2,500	2,500	2,550	0	-50
Trade	4,900	4,700	4,950	200	-50
Wholesale	400	400	350	0	50
Retail	4,500	4,300	4,600	200	-100
Finance-Ins. & R.E.	1,200	1,200	1,300	0	-100
Mining, Services & Misc.	4,600	4,500	4,750	100	-150
Government	11,300	11,050	12,050	250	-750
Federal	2,200	2,200	2,250	0	-50
State	5,050	5,000	5,500	50	-450
Local	4,050	3,850	4,300	200	-250

from the Alaska Department of Labor's demographics unit, the uniformed military population of Fort Wainwright has climbed by 570 over last year. No economic indicator has picked up the additional activity these extra soldiers have created yet. However, any positive impact the additional troops are having may be hidden by Fairbanks' general downturn. It may be a while before they have a measurable affect on Fairbanks' present economic situation.

Gulf Coast

With a few exceptions, economic conditions in the Gulf Coast mirror the statewide picture. The Kenai Peninsula has been feeling the same declines experienced elsewhere in the state. Valdez has also been feeling the pinch, but Kodiak remains an aberration, growing amidst the state's general decline. Cordova on the other hand appears to be holding steady.

Table 7
Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/ 7/87	r/ 6/87	7/86	Changes From: 6/87	Changes From: 7/86
Nonag. Wage & Salary	24,150	20,800	24,900	3,350	-750
Mining	900	850	900	50	0
Construction	1,150	1,050	1,450	100	-300
Manufacturing	7,650	4,100	7,450	3,550	200
Food & Kindred Prod.	7,050	3,500	6,800	3,550	250
All Other Mfg.	600	600	650	0	-50
Trans. Comm. & Utilities	1,400	1,450	1,400	-50	0
Trade	3,850	3,850	3,950	0	-100
Wholesale	650	650	650	0	0
Retail	3,200	3,200	3,300	0	-100
Finance-Ins. & R.E.	650	650	700	0	-50
Services & Misc.	3,600	3,600	3,650	0	-50
Government	4,950	5,250	5,400	-300	-450
Federal	700	650	650	50	50
State	1,500	1,550	1,700	-50	-200
Local	2,750	3,050	3,050	-300	-300

Seasonally, the Gulf Coast's economy did enjoy strong gains which translated into low unemployment rates in Kodiak (4.5%) and Valdez-Cordova (6.5%). The salmon season was largely responsible for these low rates. Fish processing employment doubled in July, from 3500 in June to 7050 in July. Upper Cook Inlet's record catch helped offset Lower Cook Inlet's poor season and Kodiak's smaller salmon catch was supplemented by an active bottomfishery. Cordova, like Upper Cook Inlet, enjoyed an exceptionally good catch. The higher prices paid for salmon will inject needed income into the region particularly the Kenai Peninsula.

The Kenai Peninsula's poor economic performance has continued into 1987. Employment is still falling, unemployment remains high (13.6%), housing building permits are falling to record lows, and sales taxes for the first part of the year are off more than 20%. The Kenai-Soldotna and Homer areas have been hardest hit. Seward's picture looks better because of the prison construction and a good tourist season. Most of the Kenai Peninsula is not likely to recover until the remainder of the state does.

Southeast

Southeast enjoyed a relatively strong seasonal increase in July. Fishing and tourism were the major contributors. A corresponding decline in the unemployment rate accompanied the seasonal upswing. (From 9.0% in June to 8.1% in July.)

Juneau's economy is suffering from the state governments response to lower oil revenues, but other communities in Southeast appear to be performing better. The remainder of Southeast is more closely tied to the fortunes of the fishing and lumber and pulp industries and not government. Though the southern part of the Southeast salmon fishery has been very poor this year, the northern half has had a good year, and lumber and pulp grew both seasonally and over-the-year. Tourism has also been reported to be more than holding its own in Southeast. Its closer proximity to lower 48 markets and additional efforts to promote the region may explain the areas good year.

Table 8
Alaska Hours and Earnings for Selected Industries[1,2]

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 7/87	R/ 6/87	7/86	P/ 7/87	R/ 6/87	7/86	P/ 7/87	R/ 6/87	7/86
Mining	1,162.01	1,135.23	1,123.87	50.5	49.9	52.2	23.01	22.75	21.53
Construction	1,031.35	1,021.24	1,080.20	42.6	42.2	44.0	24.21	24.20	24.55
Manufacturing	442.83	468.15	456.23	45.7	42.1	43.7	9.69	11.12	10.44
Food & Kindred Prod	387.18	340.31	372.61	47.8	41.3	44.2	8.10	8.24	8.43
Lumber & Paper Prod	579.67	694.45	686.65	38.8	45.3	44.3	14.94	15.33	15.50
Trans., Comm. & Utilities	577.18	544.52	582.38	36.6	35.8	37.0	15.77	15.21	15.74
Trade	363.29	364.36	371.18	34.5	33.8	33.5	10.53	10.78	11.08
Wholesale	476.53	511.36	501.35	36.6	37.6	37.0	13.02	13.60	13.55
Retail	324.82	314.28	323.93	33.8	32.5	32.2	9.61	9.67	10.06
Finance Ins. & R.E.	378.35	375.06	394.91	32.9	32.9	34.4	11.50	11.40	11.48

Benchmark March 1986

[1] Prepared in cooperation with the Bureau of Labor Statistics, US Department of Labor

[2] Excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

Table 9
Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 7/87	R/ 6/87	7/86	P/ 7/87	R/ 6/87	7/86	P/ 7/87	R/ 6/87	7/86	P/ 7/87	R/ 6/87	7/86
Alaska Statewide	265,287	262,884	276,933	25,796	29,290	28,274	9.7	11.1	10.2	239,491	233,594	248,659
Anch/MatSu Region	136,174	137,719	142,782	12,343	13,518	13,855	9.1	9.8	9.7	123,831	124,201	128,927
Anchorage Borough	120,250	120,885	125,948	9,456	10,430	10,813	7.9	8.6	8.6	110,794	110,455	115,135
MatSu Borough	15,924	16,834	16,834	2,887	3,088	3,042	18.1	18.3	18.1	13,037	13,746	13,792
Gulf Coast Region	32,662	29,161	33,235	3,399	3,822	3,646	10.4	13.1	11.0	29,263	25,339	29,589
Kenai Peninsula Bor	20,204	18,036	20,652	2,744	2,917	2,997	13.6	16.2	14.5	17,460	15,119	17,655
Kodiak Island Bor	7,633	6,822	7,752	341	508	379	4.5	7.4	4.9	7,292	6,314	7,373
Valdez-Cordova	4,825	4,303	4,831	314	397	270	6.5	9.2	5.6	4,511	3,906	4,561
Interior Region	39,403	40,659	42,125	5,091	6,060	5,461	12.9	14.9	13.0	34,312	34,599	36,664
Fairbanks North Star Br	34,028	34,972	36,584	4,235	4,930	4,748	12.4	14.1	13.0	29,793	30,042	31,836
Southeast Fairbanks	2,291	2,386	2,406	291	369	269	12.7	15.5	11.2	2,000	2,017	2,137
Yukon-Koyukuk	3,084	3,301	3,135	565	761	444	18.3	23.1	14.2	2,519	2,540	2,691
Northern Region	8,127	8,291	8,408	1,072	1,333	1,129	13.2	16.1	13.4	7,055	6,958	7,279
Nome	3,136	3,208	3,249	456	565	483	14.5	17.6	14.9	2,680	2,643	2,766
North Slope Borough	2,782	2,810	2,888	186	250	210	6.7	8.9	7.3	2,596	2,560	2,678
Northwest Arctic Bor	2,209	2,273	2,271	430	518	436	19.5	22.8	19.2	1,779	1,755	1,835
Southeast Region	35,635	34,491	36,764	2,881	3,104	3,086	8.1	9.0	8.4	32,754	31,387	33,678
Haines Borough	978	949	978	93	101	68	9.5	10.6	7.0	885	848	910
Juneau Borough	15,711	14,961	16,244	1,195	1,051	1,319	7.6	7.0	8.1	14,516	13,910	14,925
Ketchikan Gateway Br	7,115	7,015	7,418	517	693	634	7.3	9.9	8.5	6,598	6,322	6,784
Pr of Wales-Outer Ktch	2,531	2,516	2,609	296	374	311	11.7	14.9	11.9	2,235	2,142	2,298
Sitka Borough	4,223	4,068	4,324	321	329	312	7.6	8.1	7.2	3,902	3,739	4,012
Skagway-Yakutat-Angoon	1,588	1,512	1,649	187	169	208	11.8	11.2	12.5	1,401	1,343	1,441
Wrangell-Petersburg	3,489	3,470	3,542	272	387	234	7.8	11.2	6.6	3,217	3,083	3,308
Southwest Region	13,286	12,563	13,619	1,010	1,453	1,097	7.6	11.6	8.1	12,276	11,110	12,522
Aleutian Islands	3,375	3,118	3,459	96	151	115	2.8	4.8	3.3	3,279	2,967	3,344
Bethel	5,444	5,145	5,569	572	736	600	10.5	14.3	10.8	4,872	4,409	4,969
Bristol Bay Borough	485	452	499	17	29	22	3.5	6.4	4.4	468	423	477
Dillingham	2,280	2,209	2,347	109	241	133	4.8	11.0	5.7	2,171	1,968	2,214
Wade Hampton	1,702	1,640	1,745	216	294	227	12.7	17.9	13.0	1,486	1,346	1,518

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor, because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature, meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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